The RUBBER AGE

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Vol. 20 MARCH 10, 1927 No. 11

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The
RUBBER AGE

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	A	B
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Reclaim		50
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Clay		12
Whiting		14
Carbon Black		2
Mineral Rubber		5
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Sulphur	3	1—10 ozs.
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	108.1	100

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Stock A

Cure—Minutes Pressure—Temperature	15	20	30	45	60
5 lbs.—227°F				3000	4280
10 lbs.—239			3510	4235	4005
20 lbs.—258	3135	4065	4265	4495	3870
30 lbs.—274	4755	4520	3855	4005	3410
40 lbs.—287	4510	3885	3695	3590	3125

Stock B

Cure—Minutes Pressure—Temperature					
10 lbs.—239°F		1020	1160	1265	1215
20 lbs.—258	705	1075	1130	1115	1050
30 lbs.—274	1065	1075	1145	1020	985
40 lbs.—287	1080	1125	1085	950	940
60 lbs.—307	1080	1040	1015	910	900

This wide range of possible curing conditions shows that Monex is adaptable to a great variety of requirements.

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The RUBBER AGE

The Only Twice-a-Month Rubber Publication

Vol. 20 NEW YORK, MARCH 10, 1927 No. 11

U. S. RUBBER EARNINGS FALL AS SALES GROW

Dividend of $6,000,000 from Plantation Subsidiary Bolsters Annual Statement—Entire Net Income Is Set Aside As a Special Crude Rubber Reserve for 1927.

In common with practically all other American rubber manufacturers, the United States Rubber Company has announced a satisfactory growth in sales in 1926, accompanied by a considerable decline in profits. Sales ran $215,528,309 in 1926 as compared with $206,473,737 in 1925. Net income after interest, taxes, depreciation and preferred dividends was $8,535,380 as compared with $12,082,352 in 1925, but such a showing was achieved only by including a dividend of $6,000,000 received from the Company's rubber plantations and using up a special crude rubber reserve of $3,000,000 set up at the end of 1925.

In his message to the stockholders, C. B. Seger, Chairman of the Board, called attention to the wide variation in the price of crude rubber between July, 1925, and the end of 1926, and held that factor responsible for the poor profit showing. Since the crude rubber situation was still so uncertain at the end of last year, the entire net surplus earnings of $8,535,380 were set aside as a reserve against inventories. This is the largest reserve that has ever been established in the rubber industry for such a purpose.

Total current assets of the company on December 31 were $153,958,810.96, while total assets, including plants, properties and plantations, were $355,832,497.20. Current liabilities were $33,671,657.75. Among the total liabilities was listed capital stock valued at $146,368,800 and funded indebtedness of $110,227,800. The surplus was $40,798,675.61. A year previously it had been $41,061,658.72.

Whereas the net income announced for 1925 did not contain any income from rubber plantations owned by the company, $6,000,000 of such income was included in 1926. This was accepted as the net profits of the plantations in 1926. Rubber received from the plantations is taken into account by the United States Rubber Company at current market prices and the plantation companies are credited in open account. The plantation companies draw against this open account for current cash requirements and the balance is retained by the United States Rubber Company and is comprised in its general assets. The balance of the open account amounted to $4,310,105.26 as of December 31, 1926, after payment of the $6,000,000 dividend. The consolidated general balance sheet of the United States Rubber Plantations, Inc., showed an unappropriated surplus, after payment of the dividend, of $8,879,241.

Chairman Seger informed the stockholders that the plantations now comprised 134,164 acres of which 104,232 acres were in Sumatra and 29,932 acres in Malaya. Of the total area, 82,574 acres have been planted and 51,828 acres are in bearing. Production in 1926 amounted to 22,900,000 pounds, an increase of 3,230,000 pounds over 1925. The plantations represent a total investment of $29,662,000 of which amount the United States Rubber Company invested $18,000,000, the remainder coming from earnings of the plantations themselves.

UNITED STATES RUBBER CO.

Balance Sheet, December 31, 1926

ASSETS

Cash	$8,235,073.03
Customers' Acc'ts Rec.	47,418,811.30
Other Acc't Receivable	3,357,129.51
Inventories—Finished Goods	48,456,221.84
Inventories—Materials	46,491,575.28
Plants & Plantations	184,631,856.10
Outside securities	6,019,904.28
Employees Notes Rec. & Stock held by subsid. cos.	6,249,790.15
Prepaid & Deferred Assets	4,972,135.71
Total	$355,832,497.20

LIABILITIES

Bank Loans	$11,800,000.00
Accounts Payable*	21,871,657.75
Funded debt	110,227,800.00
Insurance Reserve	1,266,208.60
General Reserves	1,673,855.93
Pfd. div. Reserve	1,302,200.00
Crude rubber Reserve	8,535,380.42
Open Acc't with U. S. Rubber Plantations, Inc.	4,310,105.26
Pfd. stock, net	65,110,000.00
Common stock	81,000,000.00
Dominion Rub. Co. Stock	258,800.00
Fixed surplus—subsidiary companies	6,677,813.63
Surplus†	40,798,675.61
Total	$355,832,497.20

*Including acceptances payable for importations of crude rubber. †Subject to final determination of Federal taxes for years subsequent to 1917.

EDISON OPTIMISTIC IN EXPERIMENTS IN SOUTH

Noted Inventor Expects Cultivation of Vine Rubber to be Successful—Now Designing Combination Machine for Cutting the Crop and Extracting the Latex From It.

Through introducing African vine rubber into the southern states and inventing a combination reaper and press to harvest it, Thomas A. Edison hopes to solve the problem of an adequate supply of rubber for American industry and at the same time make the South less dependent on cotton. It has been known for some time that Mr. Edison was making experiments with rubber plants on his estate at Fort Meyers, Florida, but until February 28 their exact nature had not been revealed. On that date a rather complete statement was made public.

The experiments are being made on three acres of the Edison estate. Some time ago 500 pounds of the seed of the rubber vine, understood to be *Cryptostegia madagascariensis*, were brought from Madagascar and planted. When Mr. Edison returned to his estate late in February for his annual visit, he was so encouraged by the progress of the plants that he started working until late at night in his laboratory to complete the model of a combination reaper and press on which he depends to make the harvesting of the vines practical.

Mr. Edison said the vine is apparently a perennial which will grow without replanting and can be harvested annually without further cultivation. He had found the growth of the vine on the light, sandy soil of the South to be abundant. The vines planted a year ago had withstood cold snaps and the hurricane of last autumn and although there had been no frosts to test their resistance, Mr. Edison said he had data which showed that the vines would withstand "at least five degrees and perhaps more".

In order to reduce the labor cost of harvesting, which has been regarded as an insurmountable obstacle to the production of rubber in this country, Mr. Edison is designing a combination reaper and press which would cut and gather the vines and extract the latex from them by an entirely mechanical process. This

machine would be built by Henry Ford who is associated with Mr. Edison in the experiments.

Mr. Edison made it clear that both the cultivation of the plants and the machine are in an experimental stage but he felt that the work had reached a point where he was justified in expressing considerable confidence in the outcome. A second shipment of the seed, consisting of 150 pounds, is on its way to the United States from Madagascar. It is expected that another experimental area will be planted near Pensacola, Florida.

Cryptostegia grandiflora, as well as *C. madagascariensis*, is known as an uncultivated rubber producer in Madagascar. The quality of the rubber is said to be excellent, but the problem of extracting the latex has always been a difficult one. The plant belongs to the milkweed family. Little is known of the possibilities of its cultivation except that as compared to Hevea less rainfall and possibly not such high temperatures would be required.

While not openly scoffing at Mr. Edison's experiments or predictions, American rubber interests believe his chances of success are far from good.

Tire Prices Not Reduced

Another reduction in automobile tire prices, about which persistent rumors were heard during the first week in March, has apparently been postponed if it was seriously contemplated by any manufacturer. Since tires shipped on spring dating terms are still within their period of price protection, if unsold by the dealer, a price reduction would mean a considerable loss on tires which have already left the factories.

Stock Increase Expected

Stocks of rubber in the United States are expected to have declined somewhat in February due to consumption having increased while arrivals were slow. Unofficial estimates place the imports at around 26,000 to 27,000 tons. Consumption is estimated at about 30,000 tons.

Net imports in January, according to the final figures of the Department of Commerce, amounted to 41,814 long tons. A total of 43,340 tons were imported but 1,526 tons were re-exported, chiefly to Canada. The average declared value per pound of the gross imports was 37.99 cents.

Auto Plants Busy

Leading producers of automobiles and trucks were reported to be operating at or near capacity during the first week in March and it is expected that production for the month will approximate that of March, 1926, when 381,116 passenger cars and 44,848 trucks were turned out. Sales are said to be running practically equal with the same period last year, except in the South where the low price of cotton has reduced the purchasing power.

RESIGNS AS PRESIDENT OF NAT'L AUTO CHAMBER

Col. Charles Clifton resigned as president of the National Automobile Chamber of Commerce at a meeting in New York March 1. He had held the office since the beginning of the association's work nearly 25 years ago. Roy D. Chapin, chairman of the board of the Hudson Motor Car Company, was elected to succeed him. Alvan Macauley, president of the Packard Company, was elected first vice-president, and Alfred H. Swayne, vice-president of General Motors, was named vice-president of the passenger car division.

Col. Clifton was then elected honorary president and an honorary director. When he took the chair in 1904 about 23,000 cars, valued at $25,000,000 were being manufactured. Today the yearly output is more than 4,400,000, valued at $3,000,000,000.

Head R.A.A. Division

N. E. Bowman of the Pocono Rubber Cloth Company, Trenton, N. J., and W. E. Taylor of the Duratex Corporation, Newark, N. J., were unanimously re-elected to the respective offices of chairman and vice-chairman of the Automobile Fabric Manufacturers Division of the Rubber Association for 1927.

MASON TIRE & RUBBER EARNED $401,904 IN 1926

The Mason Tire & Rubber Co., Kent, Ohio, reports for the year ended Dec. 31, 1926, net profit of $401,904 after charges, including extraordinary deductions but before Federal taxes. This is equivalent to $6.96 a share on the 57,807 shares of 7 per cent cumulative preferred stock on which back dividends amount to approximately 22 per cent. This profit compares with $165,960 or $2.88 a share on the preferred stock in 1925. Sales in 1926 aggregated $14,452,304, against $9,841,135 in 1925.

TO ISSUE REPORT ON SEALING COMPOUNDS

The U. S. Bureau of Standards, Washington, recently completed a series of tests with puncture-sealing compounds for inner tubes, and is now compiling a technical report on the subject. It has been announced that the report will deal with arguments for and against the common use of injections of various substances into tubes to seal punctures.

Edward Payson Hurd

Edward P. Hurd, aged 86, one of the organizers of the United Shoe Machinery Corporation, manufacturers of leather and rubber machinery, died of pneumonia on Wednesday, February 23, at his home in Milton, Mass.

Mr. Hurl was born in Medway and was educated in local schools and Phillips Academy. He served during the Civil War and for eight months was a prisoner at Andersonville and other Southern prisons.

As one of the organizers of the United Shoe Machinery Corporation, he became identified with this organization in February, 1899. He had been vice-president, assistant treasurer and member of the executive and finance committees of the United Shoe Machinery Company of New Jersey, and the same corporations of Mexico, and South America; and was also officer or director in many other subsidiary corporations in this country and Europe. He had been active in the affairs of the corporation until a few years ago when he retired from active business life.

Scrap Dealers to Meet

A meeting of the Scrap Rubber Division of the National Association of Waste Material Dealers, Inc., will be held at the Hotel Astor, New York, at 10:30 a.m. March 15. A chairman to hold office for the year ending March 24, 1928, will be elected at the meeting and other matters of interest to the scrap rubber trade discussed. E. B. Friedlander, chairman, will preside.

Grasselli Earns $4,149,030

The Grasselli Chemical Company, New York, reports for 1926 net profits of $4,149,030. Charges to depreciation totaled $1,218,970. Additions to surplus were $535,836, bringing the accumulated surplus to $13,244,316.

The company declared the regular quarterly dividend of $1.50 on the preferred stock and one of $2 on the common. Both dividends are payable March 31 to stockholders of record March 15.

Receiver for Old Colony

Frederick H. Leland has been appointed temporary receiver for the Old Colony Tire Company, Canton, Mass., by Judge Louis Cox of Superior Court on a bill of equity brought by the United States. The Government asks the Court to retake and resell the plant which the defendant purchased under receivership proceedings in Feb., 1925, from the George Grow Tire Company because of failure to pay $29,236 in taxes for 1918 to 1925 owed by the George Grow Co.

GATES SALES IN 1926 GAINED 48 PER CENT

According to a recent announcement by the company, sales of the Gates Rubber Company, Denver, Colo., increased 48 per cent in 1926 over the previous year. Production schedules for 1927 call for an increase in production of 50 per cent. The company has added 30,000 square feet of factory space and has installed new machinery and equipment in order to increase output to a point commensurate with the growing demand for its products.

DILLON DENIES BIG PROFIT ON GOODYEAR

In Answers to Various Goodyear Suits he Says Profit from 1921 Reorganization was Only One Per Cent on $51,750,000 Securities Sold—Other Developments.

The refusal of E. L. Williams, of the law firm of Cotton and Franklin, New York City, to be questioned regarding the relations of the Goodyear Tire & Rubber Co. with Dillon, Read & Co.; the denial by Judge John M. Killits of a motion to set aside the order restraining the Goodyear company from holding its annual meeting March 28; the attempt of A. B. Thompson, counsel for F. C. Tomlinson and other stockholders, to establish a connection between Dillon, Read & Co. and the Fisk Rubber Company, Chicopee Falls, Mass.; and the filing of an answer by Clarence Dillon—these are the latest outstanding developments in litigation involving control of the Goodyear company.

Contending that the relations between client and counsel are confidential and that certain information he possessed was inviolable, E. L. Williams refused to be questioned by A. B. Thompson on Feb. 24 while depositions were being taken in a law office in Akron for use in court.

Refuses to Set Aside Order

Judge John M. Killits in Federal Court at Toledo on Feb. 26 ruled that the restraining order enjoining the holding of the annual Goodyear stockholders' meeting would not be set aside. It is the intention of the Court to postpone the meeting until a decision has been reached on the suit for an injunction restraining F. A. Seiberling, R. L. Robinson and H. B. Manton from exercising their powers as common stock voting trustees.

A. B. Thompson, of counsel for Goodyear stockholders, sought to prove on Feb. 23 by questioning P. W. Litchfield that the Fisk Rubber Company is controlled by Dillon, Read & Co. Mr. Litchfield denied knowledge of the alleged control, but admitted that Goodyear bought half of a tire fabric mill at New Bedford, Mass., for $4,500,000 and that Fisk bought the other half. The same kind of a transaction was also completed for a fabric mill at Passaic, N. J.

Clarence Dillon on Feb. 28 filed answers both in New York and Akron to the suits brought by various Goodyear stockholders who allege that excessive profits of at least $15,000,000 had been made by reorganization of the Goodyear company in 1921. He said that all issues of securities purchased from Goodyear by his company or syndicates organized by it aggregated a principal amount of $51,750,000, including $30,000,000 first mortgage bonds issued when the company was reorganized. For all services in distributing these securities, Dillon, Read & Co. received $563,334, or approximately one per cent of the principal amount. Commissions on other transactions between the two companies since the reorganization have amounted to $252,002.

"Dillon, Read & Co.," said Mr. Dillon, "has never solicited or received a loan, or borrowed money from the Goodyear company. The management stock, issued to Owen D. Young, John Sherwin and Clarence Dillon, as joint tenants, was for the purpose of protecting the securities issued upon the reorganization of the company."

AMERY SEES NO CHANGE IN RESTRICTION POLICY

Secretary of State for the British Colonies Amery told the House of Commons on Feb. 22 that no change in the Stevenson restriction plan is contemplated by

Courtesy *Time*

L. C. M. Amery

his department as long as conditions remain substantially the same as at present.

Asked whether the policy would be continued after Nov. 1, and, if so, what alterations are contemplated after that date, Secretary Amery replied: "So long as conditions under which the present scheme of operating remain substantially the same, I do not propose to suggest to the Governments of Ceylon and Malaya that they should suspend the restriction measures or that the regulations now in force be materially modified."

Clarence H. Guild

Clarence Herbert Guild, aged 81, former secretary-treasurer of the Woonsocket Rubber Company, Milville, Mass., died suddenly Feb. 19 at his home, 20 Pitman St., Providence, R. I.

Mr. Guild was born in Dedham, Mass., on Sept. 7, 1846, and became affiliated with the Banigan Rubber Company in the early '70s. Later he joined the Woonsocket Rubber Company where for many years he was secretary-treasurer. He continued in this office when the Banigan, Woonsocket and Marvel Rubber Company were taken over by the United States Rubber Company, retiring about five years ago. He is survived by three sons and one daughter.

1926 WAS WORST YEAR IN KELLY'S HISTORY

Samuel Woolner, Jr., President, Explains Why Kelly-Springfield Tire Company is Entering 1927 in Poor Financial Condition—Surplus was Reduced $3,439,799.

The Kelly-Springfield Tire Company, New York, the financial report of which was published in the February 25 issue of THE RUBBER AGE, made the poorest showing in its history in 1926, with a loss of nearly $1,500,000, before interest and depreciation, and a deficit for the year of nearly $3,500,000, after interest and depreciation charges.

In a statement to stockholders, Samuel Woolner, Jr., explained that the year was one of substantially declining prices of both rubber and tires.

"During the year the Cumberland plant was thoroughly reorganized. The changes were sweeping and during such reorganization it was necessary to cut down production and to rebuild certain sizes with which to replace certain defective goods. All stocks on hand were carefully inspected, and all tires not fully first class were branded seconds and sold as such. This program, of necessity, resulted in a substantial operating loss for 1926.

Product Has Been Improved

"The sweeping changes made in the Cumberland plant have resulted in more than doubling the production of tires," Mr. Woolner continued. "In addition, we have developed the finest line of merchandise ever built by the company. This fact has been quickly recognized by the dealer, the consumer and the manufacturer of motor cars from whom we are now receiving a satisfactory share of the business. Every department of the company is now operating satisfactorily.

"Based upon the business which the company is now doing, the favorable response which the buying public is making to our products and the fact that the company is now freed from the causes which contributed to the loss in 1926, the management believes that the business of the company for 1927 will be satisfactory."

The company took into its income account last year $1,000,000, which had been previously set aside as a raw material reserve, which means that if this reserve had not been available, the actual deficit for last year would have been about $4,500,000.

As a result of activities in 1926, the Kelly-Springfield Company entered the current year in probably the weakest financial condition it has ever been in. Its profit and loss surplus has been reduced to $777,189, compared with $4,216,989 at the end of 1925, and, although the sinking fund operations have reduced the amount of 10-year 8 per cent gold notes outstanding from $7,000,000 to $6,000,000, the company closed 1926 with a record high volume of bank indebtedness. Notes payable were $8,361,636 an increase of more than $7,500,000 from the preceding year.

OLD RULE OBSTRUCTS RUBBER TILE SALES

Manufacturers of rubber tiling and flooring have recently been much disturbed over the determination of New York City officials to resurrect and enforce an almost forgotten section of the city's building code which prohibits the affixing of rubber tile, cork tile, linoleum or other non-fireproof material to floors of buildings over 150 feet high. The rule is apparently to be made effective at the request of the Fire Department which argues that the lives of firemen are in considerably more danger when they are forced to enter tall buildings whose floors may burn or soften under heat.

Rubber tiling manufacturers have joined with producers of cork tile and linoleum in an effort to have the ruling rescinded or modified. A final answer to their arguments is expected in the near future although officials have been unyielding in the matter so far. At the present time many rubber floors are in use in New York buildings which are 150 feet or more in height and many additional installations have been in sight.

NORTHERN RUBBER CO. TO MAKE TRUCK TIRES

Announcement was made at the recent annual meeting of the Northern Rubber Company, Barberton, Ohio, that the production of truck tires will begin in the near future, and that orders for many of these are already on hand. Business was more than doubled in 1926, it was said, and present indications are that the company will enjoy an unusually prosperous year in 1927.

Officers re-elected were: L. J. Shott, president; Edmund Shaw, treasurer; Owen Moynihan, secretary; and the following vice-presidents: D. A. A. Kohler, Akron; Louis Schott, Akron; A. Z. Wheeler, Massilon; Parlee H. Snyder, Massilon; Stanley M. Balzly, Massilon; J. B. Immler, Canton; J. J. Bower, Columbus; Thomas H. Clark, Columbus; and F. M. Howard, Columbus.

R. A. A. Distributes Booklet

The Rubber Association of America, Inc., has printed 2,500,000 copies of an abridged edition of its booklet, "The Care of Pneumatic Tires", for distribution among automobile manufacturers and automobile clubs. The manufacturers receiving supplies of the booklet have agreed to put one copy in each automobile when it leaves the factory.

Resigns from Goodrich

After thirty years service with the B. F. Goodrich Company where he invented many devices and processes in connection with rubber manufacture, John R. Gammeter has left the company to establish his own laboratory and to make his patents generally available to rubber manufacturers. His resignation took effect on February 21. The latest addition to Mr. Gammeter's long list of patents is a process for blowing clay into an unvulcanized tire to maintain the proper pressure while the tire is being cured. The Gammeter balloon valve has been well known for several years.

YOUNG AND LEE NAMED ON AUSTRALIAN STAFF

The Goodyear Tire & Rubber Co. has announced the appointment of Lee Young and R. L. Jones to the staff of its new Australian factory now under construction. This appointment practically completes the personnel of the new organization.

Mr. Young, who has charge of stock preparation on truck tires in Akron, will do work along similar lines at Sydney. Mr. Jones will have charge of finishing, building and curing of tires. Both have been with the Goodyear company for more than 12 years.

MASSACHUSETTS PLANTS MOSTLY ON FULL TIME

The Massachusetts State Department of Labor and Industries in a report dated Feb. 21, covering the month of January, indicates the rubber footwear industry to be operating full time.

Earnings in the rubber goods division, including tires and tubes, show a decrease of $2.17 per person as a reflection of curtailment in a very important rubber goods plant, states the report. In the number employed, rubber footwear showed 9,459 compared with 9,458 for December, and rubber goods, 2,969 compared with 3,124 in December. Rubber footwear wages decreased from $27.20 weekly to $26.07. Employment index of footwear remained the same at 106.4, compared with the five year average, and rubber goods decreased from 130.6 to 124.8.

Clarence J. Dyer

Clarence J. Dyer, aged 33, industrial engineer in charge of development work for the Firestone Footwear Company, Hudson, Mass., died Feb. 10 at his home 61 Central St., Hudson, from heart disease. He is survived by a widow, Marguerite L., and a sister. Burial was in Portland, Me.

Charles C. Phelps Advanced

The Hill Clutch Machine & Foundry Co., Cleveland, has appointed Charles C. Phelps, 473 Getty Ave., Paterson, N. J., sales engineer for the Metropolitan New York and northern New Jersey district. The products of the company include everything for power transmission, such as shafting, couplings, clutches, pulleys, sheaves, belt tightners, speed transformers, agitators, gears and sprockets. A number of rubber factories use its "Cleveland Type" oil-film bearings, "Smith Type" friction clutches, "Steel Arm" automatic belt tightners and "Industrial Type" spur gear speed transformers and couplings.

FIRESTONE OPTIMISTIC REGARDING TIRE SALES

"Sales of the Firestone Tire & Rubber Co. since the first of the year have been ahead of those for the corresponding period of 1926, and I look for continued improvement in retail tire business as spring approaches," said Harvey S. Firestone recently. "Dealer stocks are comparatively low throughout the country. With increased motor car registration, and the fact that dealers and the public bought sparingly last year, a gain of 10 per cent in tire consumption this year is almost certain.

"Our Akron plant is on practically a full time operating basis, with three shifts employed. Current production of around 40,000 tires and 45,000 tubes a day is the highest on record. We are equipping an extension to Plant Two, which will give us a capacity of 45,000 tires and 50,000 tubes a day. Steady progress is being made in development of rubber plantations in Liberia, despite the difficulties which have to be overcome."

V. A. PARKER JOINS BRIDGWATER MACHINE

V. A. Parker, who was formerly associated with the B. F. Goodrich Company, Akron, for 22 years as mold engineer in charge of design and construction, has joined the engineering and sales division of the Bridgwater Machine Company, Akron, manufacturers of rubber factory equipment.

Mr. Parker, who is well known in the industry where he is regarded as an authority of mold and tire design, was instrumental in developing the forged steel tire molds that are commonly used today. He also helped to perfect the popular India Core which the Goodrich company was the first to adopt for regular production. The Bridgwater Machine Company is the largest manufacturer of this core.

Allen Creditors to Meet

Creditors of the Allen Machine Company, Erie, Pa., which was declared bankrupt Feb. 4, 1927, will meet at the office of Richie T. Marsh, referee in bankruptcy, Ariel Bldg., Erie, on March 15 at 10 o'clock. Frank M. Wallace, receiver, will apply for confirmation of his account in Common Pleas Court at Erie on March 21.

Dunlop May Buy Slazengers

The Dunlop Rubber Co., Birmingham, England, is negotiating for the purchase of Slazengers, Ltd., prominent British tennis ball manufacturers, and is said to have approached other British tennis ball producers also. The negotiations are attributed to a desire on Dunlop's part to obtain entire control of tennis ball manufacture and sale in Great Britain. Slazengers has been a keen competitor of Dunlop for many years.

PRODUCTION IN AKRON 130,000 TIRES A DAY

Operations at Tire Factories Have Shown Marked Improvement in Last Three Weeks As Result of Heavy Orders from Dealers —Expect Current Year to be Good One.

Conditions in Akron tire factories have shown a decided improvement during the last three weeks, due, it is said, to the fact that good weather conditions and increasing signs of an early spring have caused dealers to place belated orders to fill out depleted stocks. Whereas production during the third week in February was estimated as 115,000 tires a day, Akron plants are now said to be producing in the neighborhood of 130,000 tires and 175,000 tubes a day. At the end of January, it was not more than 100,000 tires a day.

A much better sentiment now prevails among both manufacturers and dealers, who are more optimistic concerning the outlook for 1927 than they were at the beginning of the year. Reports from tire fabric mills, crude rubber brokers, manufacturers of machinery, chemical factors and other firms supplying the rubber industry bear out the marked improvement in the operations of tire factories. New York chemical houses and rubber brokers declare that smaller manufacturers, who refused to be interested in further commitments a few weeks ago, have since come into the market for raw supplies.

Improved Weather Helps

Improved weather conditions in the eastern States and throughout the Middle West, which have brought many motor cars out of dead storage, seemed to have given many tire dealers the moral courage needed to replenish their tire stocks, but it is said to be a fact that many of these dealer orders have also been prompted by a spurt in retail sales.

Manufacturers hope and believe that there will be a decided trend this spring and summer toward the best grades of tires, for it is known that millions of motorists bought second lines in 1926, and although the mileage such tires will give is problematical, it is expected that these drivers will be in the market for first class tires before the summer is over.

The balloon tire, constituting slightly less than half of present tire production, is expected to make further inroads on high pressure tires this year, as the report of the Tire & Rim Association for January shows that rims tested made up 77 per cent of the total. The fact that a few new balloon sizes will be added this year is evident from automobile manufacturers' original equipment specifications which now include 36 different balloon tire sizes for passenger cars, buses and light trucks. The number of balloon sizes for passenger cars alone is 28.

The balloon tire represented 11.43 per cent of total tire production in 1924, rose to 34.22 per cent in 1925 and in 1926 was 47.03. On the basis of motor car registrations, as of Jan. 1, it is estimated that there were 20,000,000 passenger cars and light trucks using pneumatic tire equipment. Of this number, 7,200,000 were equipped with balloon tires and 12,800,000 used high pressure tires. Based on current tire prices, it is calculated that close to $1,000,000,000 worth of tires will be sold in 1927.

JOHN WESTREN HEADS CANADIAN ASSOCIATION

At the annual meeting of the Rubber Association of Canada held recently in Montreal, John Westren, vice-president and general manager of the Dunlop Tire & Rubber Goods Co., Ltd., Toronto, was

John Westren

elected president. E. W. BeSaw was elected vice-president; C. N. Candee, treasurer and Joseph O'Mara, assistant treasurer.

CANADIAN GOODYEAR PLANTS AT CAPACITY

Factories of the Goodyear Tire & Rubber Co. of Canada at New Toronto and Bowmanville and the cotton fabric mill at Ste. Hyacinthe are being operated at capacity. Previous production records have been broken in the past few weeks, and it is rumored that the company is planning to increase its facilities.

The Canadian Goodyear company, which is the largest rubber manufacturer in the Dominion, reported profits for the year ended Sept. 30, 1926, of $2,246,641.

It was announced by the Akron office March 3 that tire production at the Akron, California and Canadian factories was at the rate of 57,000 units a day—a new high record.

C. C. Osman Back from Trip

C. C. Osman, president of the Marathon Rubber Company, Cuyahoga Falls, Ohio, recently returned from an extensive trip to the west coast and through the southern and eastern territories.

CONTROL OF VOORHEES PASSES TO NEW HANDS

Albert Y. Tucker, William J. Tompkins and Herbert S. May Buy Controlling Interest in Voorhees Rubber Mfg. Co. and Control of American Rubber Products Corp.

Albert Y. Tucker, William J. Tompkins, vice-president of the Tee Pee Rubber Company, Buffalo, and Herbert S. May have acquired control of the stock of the Voorhees Rubber Mfg. Company, Jersey City, N. J., manufacturer of mechanical rubber goods, and have also purchased control of the American Rubber Products Corp., Jersey City, manufacturer of plumbers' supplies, rubber tiling and molded goods.

Although the two companies will be operated in conjunction, their merger is not contemplated, according to a statement issued by Mr. Tucker. It is the intention of the new management to expand the lines and increase the sales of both companies. Numerous additions have already been made to the sales force of the Voorhees company in an effort to stimulate the sale of this firm's lines of "Rubber Goods of Ultimate Economy".

To Sell Factory Site

As the farming district in which the Voorhees factory was built in 1898 has developed into a residential district and the value of the property has been enhanced by the growth of Jersey City and the approaching completion of the vehicular tunnel to New York, it has been decided to dispose of the real estate. Arrangements for increased production of Voorhees goods elsewhere are being completed.

The new officers of the Voorhees Rubber Mfg. Company are Albert Y. Tucker, chairman and general manager; John J. Voorhees, president; William J. Tompkins, vice-president; Frank D. Voorhees, vice-president and treasurer; John W. Teller, vice-president; and Herbert S. May, secretary. The directorate is now composed of the following: Albert Y. Tucker, John J. Voorhees, William J. Tompkins, Herbert S. May, and James Rattray, vice-president of the Guarantee Trust Company of Newark, N. J.

New officers of the American Rubber Products Corporation, which was established in 1922 by Augustine Davis, formerly of the Davis-Bourneville Company, Jersey City, are as follows: Augustine Davis, president; Albert Y. Tucker, vice-president and general manager; Daniel E. Evarts, vice-president; Robert Earl, vice-president and treasurer; K. C. Madden, secretary; and William J. Tompkins, assistant general manager. The officers and John T. Earl compose the board of directors.

Daniel E. Evarts, vice-president of the American Products Corporation, is also president of the New Jersey Title Guarantee & Trust Co., Jersey City. John J. Voorhees is in charge of production of both the Voorhees Rubber Mfg. Company and the American Rubber Products Corporation.

AKRON STANDARD MOLD TO BUILD NEW ADDITION

It has been announced by A. J. Fleiter, vice-president and general manager of the Akron Standard Mold Company, that construction of another addition to its factory in Akron will be started immediately. This will be the second building to be erected in less than eighteen months and, with the first, practically doubles the floor space.

The large increase in orders, particularly for tire and tube vulvanizing equipment, is cited by Mr. Fleiter as having made necessary the additional buildings. The rapidly growing interest in full molded tube manufacture has brought many large installation orders to the Akron Standard Mold Company, not only from American rubber manufacturers, but also from factories in foreign countries.

India Reaches Peak

Peak production of the India Tire & Rubber Co., Akron, was reached Feb. 22, when 1,914 tires and 1,961 tubes were cured. With the completion of new buildings now under construction, manufacturing facilities will be increased and this figure will probably be exceeded, officials of the company say.

Even this high figure was far behind that needed to fill the orders on hand which call for production at the same schedule for the next sixty days. This is due to the rate at which new orders are coming in, orders from January 1, 1927 to February 22, 1927 being more than 50% ahead of those in the similar period in 1926.

Askam Rubber Reclaiming Co.

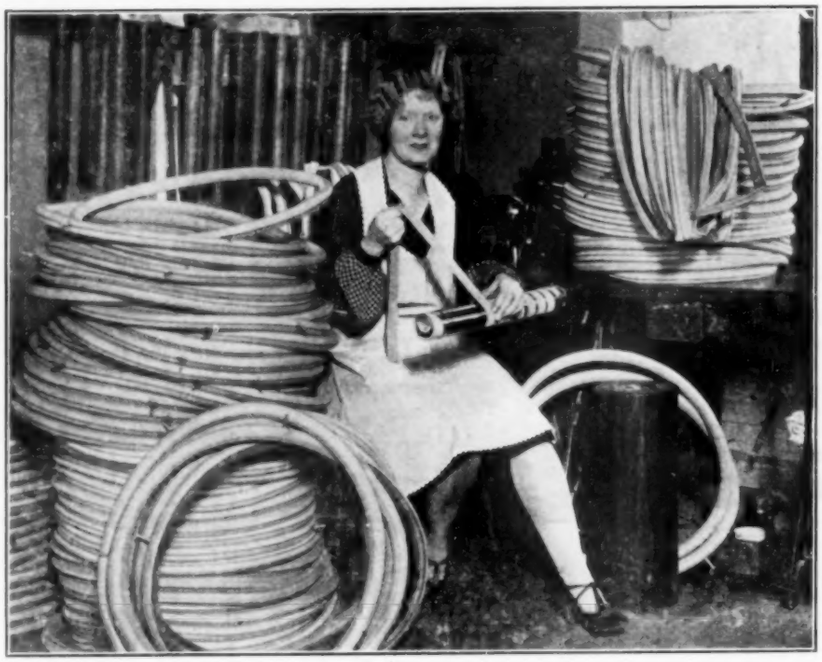
The Askam Rubber Reclaiming Company has been organized at Milford, Conn., in which city the company is said to have already acquired a plant on North Street. LeRoy Askam, a son of the former superintendent of the plant of the U. S. Rubber Reclaiming Company, is president. Jeremiah Mahoney of New Haven, Conn., is vice-president and treasurer and David L. Nettletown, also of New Haven, is secretary. It is reported that the company is beginning business with $126,000 paid-in capital.

Issue Booklet on Pine Tar

Properties, specifications and uses of retort pine tar are described in a booklet recently issued by E. W. Colledge, 300 Madison Ave., New York, eastern representative for the American Turpentine & Tar Co., New Orleans, La.; Dunlevie Pine Products Co., Allenhurst, Ga., and the National Turpentine Products Co., Jacksonville, Fla.

Special emphasis is placed on the uses of this product in the rubber industry. Ten functions are enumerated, some of which follow: It reduces compounding costs by replacing more expensive softeners and by enabling the use of cheaper grades of rubber; supplies the proper degree of tackiness and the necessary organic acid for dissolution of zinc oxide. It is claimed to be the best dispersing agent of pigments and is especially helpful in thoroughly and quickly mixing carbon black. Stocks containing litharge, lime, magnesia and zinc oxide are improved by the acid value of pine tar, as it functions in forming metallic soaps when used with the metallic oxides.

Makes Bicycle Tires for Six-Day Racers



Mrs. Ernie Pye of Newark, N. J., widow of the six-day bicycle racer who devoted many years to the perfection of a racing tire, is shown at work on the 400 pairs of tires used by six-day racers at Madison Square Garden, New York, in the race which started March 6. Most of the racers are said to prefer the Pye tire.

CONVERSE LEASES SPACE IN NAVAL NITRE DEPOT

The Converse Rubber Shoe Company has leased from the United States Navy 50,000 feet of floor space in the Malden Nitre Depot adjoining the company's property at Malden, Mass., which will be used for storage of raw materials and finished goods.

This additional floor space will release space for production in the main plant of the shoe and tire company. Current schedules call for 17,000 pairs of footwear daily, 300 tires, and 1,000 tubes.

The Nitre Depot is a three story building of brick construction and has not been used by the government since the war. A siding connecting with the western division of the Boston and Maine Railroad goes with the property. The company is making slight alterations such as the installation of conveyors to handle merchandise economically and will occupy immediately.

This is the second instance where government property is being utilized by Massachusetts rubber companies, as the Hood Rubber Company now occupies two government buildings at the Watertown Arsenal for similar purposes.

BRALEY MIDLAND BUYS CENTURY RUBBER PLANT

R. K. Braley of the Braley Midland Company, Cattellsburg, Ky., manufacturers of toy balloons, recently completed negotiations for the purchase of the Century Rubber Company, Wadsworth, Ohio, by which his company acquired the entire property, with the exception of the real estate. Production of toy balloons has been begun under the direction of Ward McQuate, formerly of the McQuate Rubber Company, Marion, Ohio.

The plant was sold by Assignee A. I. Krabill.

N. J. Zinc Remodels Office

The New Jersey Zinc Company has remodeled the second floor of its general office at 160 Front Street, New York City, into a veritable club room, with deep upholstered easy chairs, lounges and luxurious rugs. Zinc is used wherever possible in the furnishings, such as for ash trays, fixtures, etc. Displays of zinc ore and zinc products have been arranged in glass and zinc cabinets on each side of the reception room.

McQuate Factory Busy

The factory of the McQuate Rubber Company, Marion, Ohio, is now operating 24 hours a day, with orders for toy and squawker balloons booked six months ahead. The company has doubled its production since it was founded, only a little over a year ago.

MILLER REPORTS NET OF $1,025,454 FOR 1926

Miller Rubber Company Charged Off $1,044,392 Depreciation, Purchased $287,800 Worth of Preferred Stock and Paid Dividends Totaling $1,503,750.

According to the report of Jacob Pfeiffer, president, the Miller Rubber Company in 1926 showed net profits of $1,025,454, after deducting the cost of goods sold, overhead expenses, adjustment of reserve, etc. This is equal after preferred dividends to 20 cents a share on the 260,053 shares of common stock, against $3,533,201, or $10.74 a share in 1925.

Plant expenditures during the year amounted to $1,783,331 and depreciation on the plant of $1,044,392 was charged off. Regular dividends amounting to $983,568 on preferred stock and $520,182 on common stock were paid, and $287,800 worth of preferred stock was purchased for retirement. Crude rubber reserves were substantially decreased during the year by charges against them occasioned by declines in the price of crude rubber. The reserve was reduced at the end of 1926 to $300,000.

Although no statement was made in the report regarding sales, it is understood that they were better than those of the previous year.

The consolidated balance sheet, as of Dec. 31, 1926, showed current assets of $16,890,968, compared with $17,385,994 on Dec. 31, 1925. Current liabilities were $5,307,000, against $3,300,504 the previous year, leaving a net working capital of $11,583,967, compared with $14,085,490.

MILLER RUBBER COMPANY

Consolidated Balance Sheet, Dec. 31, 1926

ASSETS—		
Cash	$1,438,856	$1,280,088
Notes & accts. rec.	4,010,324	4,427,058
Inventories	11,441,788	11,678,849
Other assets	587,843	776,539
Real est., etc	8,620,427	7,901,691
Patents	1	1
Def. assets	270,055	268,540
TOTAL	$26,369,294	$26,332,765
LIABILITIES—		
Accts. pay.	$3,795,963	$2,494,714
Notes pay.	350,000	....
Accruals	161,037	675,746
Com. divs. pay.	....	130,044
Reserves	300,000	1,500,000
Pfd. stock	12,163,800	12,451,600
Com. stock	5,201,100	5,201,000
Surplus	3,397,394	3,879,561
TOTAL	$26,369,294	$26,332,765

INDIA HOLDS FIVE-DAY CONFERENCE AT AKRON

A five-day sales conference was held in Akron by the India Tire & Rubber Co., Mogadore, Feb. 14 to 19. An address of welcome was delivered by J. M. Alderfer, president, and C. C. Prather, general sales manager, gave a general review of the rubber situation from the selling standpoint. W. D. Anderson, president of the Bibb Manufacturing Company, also spoke on "Cotton and Cotton Fabries".

Entertainment features included a theatre party at the Keith-Albee house in Akron. About 65 members of the company's sales force from all sections of the country attended the conference.

A. F. Townsend Re-elected

Arthur F. Townsend was re-elected president of the Manhattan Rubber Company, Passaic, N. J., at the annual meeting Feb. 17. The entire staff of officers and all the directors were re-elected.

Firestone Buys New Site

Papers have passed in the purchase by the Firestone Tire & Rubber Company of Akron, Ohio from the Boston Safe Deposit and Trust Company, trustee, of a tract of land adjoining Brookline Avenue, Boston. The lot has a frontage on Brookline Ave. of 100 feet and about 430 feet on Fullerton St. The Firestone Company will erect a large building to be used for the wholesale tire branch in Boston. The present quarters on Beacon St. at Kenmore Sq. have been outgrown by the company.

RUBBER SHOCK DEVICE PERFECTED IN ENGLAND

Speight's Autocessory Company, 125, High Holborn, London, W. C. 1, recently placed on that market in England a new shock absorber called "Snubblox." It consists of a shackle incorporating a rubber block, which is designed to be clamped around the springs. The plan is to obtain the necessary friction for good suspension actually between the spring leaves, and the pressure on the springs can be varied by means of a set screw. The rubber block, however, provides a certain amount of give.

It is claimed that the device is easily fitted and that excellent results have been reported from motorists who have already installed it.

Miller Rubber Sued

The Miller Rubber Company was made the defendant in a recent suit filed in Common Pleas Court in Akron by Thomas J. and Adaline Keating who ask a permanent injunction and $10,000 damages. Six allegations are made, including the claim that the cooling plant at the factory throws off mists day and night, soaking their property. They also charge that foul odors emanate from the factory and a daily bonfire built of rubbish does the same thing. It is also claimed in the petition that the steam plant throws off oil and that unpleasant smells and noise issue from the calender room.

More Rubber in Philippines

Don Robinson, manager of the Yacan Plantation, Basilan Island, Philippines, is clearing about 1,500 acres on which he will plant rubber. This plantation already has about 600 acres of cocoanuts in bearing. The new area will be planted to budded rubber stock of the best yielding clones available.

COMPLETE TRANSFER OF NEW YORK RUBBER

Negotiations Pending for Some Time Have Finally Resulted in Sale by Tucker Rubber Corp. of New York Rubber Co. to Bondholders and Morgan W. Jopling.

Negotiations which have been pending since January have finally been completed and the New York Rubber Company, Beacon, N. Y., began operations Feb. 17 as an independent unit. In an announcement dated Feb. 28, W. G. Andrews, chairman of the executive committee of the Tucker Rubber Corporation, Buffalo, N. Y., which owned the New York company, stated that the company will henceforth have no connection with the Tucker Rubber Corporation.

The bondholders of the New York company, together with Morgan W. Jopling, who is said to represent large financial interests in New York City, recently purchased the factory at Beacon and all other New York Rubber Company assets. Morgan W. Jopling becomes president of the new company, and L. D. Bigelow, for several years connected with the New York Rubber Company, has been elected vice-president and general manager.

It was reported several weeks ago that stockholders of the Tucker Rubber Corporation had refused to take any action on the recommendations of the creditors' committee, and that Mr. Andrews had asked that the business be turned over to the committee for immediate liquidation. Charles R. Whiting, secretary of the committee and a member of the firm of Lawrence, Lathrop & Whiting, attorneys for large creditors, announced at that time that holders of the $300,000 first mortgage 7 per cent bond issue of the New York Rubber Company had a plan for reorganizing the business at Beacon. Creditors of the Tucker Rubber Corporation, after an investigation into the affairs of the corporation, found that there was no equity in the Beacon factory over the $300,000 first mortgage bond issue. Machinery and equipment in the Buffalo plant were appraised at $409,677. An audit of the books at the time revealed that the assets of the Tucker corporation were $1,241,595 and liabilities $1,500,000. As of Dec. 18, 1926, the corporation had a deficit of $318,564.

On Feb. 27 Federal Judge John R. Hazel appointed John H. Kelly and Edward N. Wilkes co-receivers for the Tucker Rubber Corporation following the filing of an equity receivership plea by the Federal Rubber Company, Cudahy, Wis., which has a claim of $35,000. The Tucker corporation admitted the allegations contained in the complaint and consented to the appointment of receivers. The receivers were authorized to continue the business and will submit a report April 18.

It is probable that the sale of the New York Rubber Company places the Tucker Rubber Corporation in a better position, but no statement to that effect was made.

DISCUSS RUBBER WITH PRESIDENT COOLIDGE

Harvey S. Firestone and his son, Harvey S. Firestone, Jr., were luncheon guests at the White House recently. The conversation dealt with legislation to encourage rubber cultivation in the Philippine Islands, and what the Firestone company had done to grow rubber in Liberia. At present the production in the African republic amounts to 100,000 pounds of rubber a month, at a cost of 14 cents a pound delivered in Akron, Mr. Firestone told the President. He added that he was greatly encouraged over the prospects there.

Mr. Firestone met Thomas A. Edison in Washington that evening and went with him to Florida. They planned to meet Henry Ford at Fort Myers, where both Messrs. Ford and Edison have homes.

SHUGART NEW CHAIRMAN OF R. A. TIRE DIVISION

George S. Shugart, second vice-president of the U. S. Rubber Company, has been named chairman of the executive committee of the Tire Manufacturers' Division, Rubber Association of America. Mr. Shugart, who was formerly vice-chairman of the executive committee, succeeds G. A. Waddle, of the Goodyear Tire & Rubber Co.

fine Rubber Pigments

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SOFT, BRILLIANT COLORS FOR RUBBER PRODUCTS—

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LANCASTER INCREASES OUTPUT 30 PER CENT

Since the latter part of December production of tires, tubes, rubber soles and heels has been increased approximately 30 per cent at the factory of the Lancaster Tire & Rubber Co., Lancaster, Ohio. Installation of new machinery in the tire department has raised the capacity of the plant to 1,500 tires and 2,000 tubes a day.

According to G. T. Courier, sales manager, it is planned to make further increases, as the outlook is very bright and an intensive sales campaign is expected to increase tire and tubes sales 50 per cent during the present year.

Officers of the Lancaster company elected at the recent annual meeting are: E. E. Lerch, president; C. S. Hutchinson, vice-president; J. L. Porter, secretary; C. C. McCandlish, treasurer; G. T. Courier, sales manager; W. W. Hunt, assistant secretary; and E. C. Cook, assistant treasurer.

New Post for J. McKee, Jr.

The Mason Tire & Rubber Co., Kent, Ohio, has announced the appointment of John McKee, Jr., as manager of its branch at 1597 St. Clair Ave., Cleveland. Mr. McKee was formerly manager of the branch at Dallas, Texas, and previous to joining the Mason organization was with the Goodyear Tire & Rubber Co. and the Seiberling Rubber Company.

To Make Inner Tubes

The Invincible Inner Tube Corporation, Jamestown, N. Y., has been incorporated at Albany with an authorized capital of $50,000. The new firm will manufacture inner tubes and rubber specialties. Incorporators are Allen J. and A. L. Rheubottom, 11 Pratt St., Mayville, N. Y.; and Olive L. Wright, 7 Meadow Lane, Jamestown, who is also attorney for the corporation.

Overman Changes Capital

The Overman Cushion Tire Company, Inc., New York, has filed a certificate in the office of the Secretary of State at Albany increasing and changing the par value of its shares from 5,000 preferred stock of $100 par value and 6,000 shares of common stock of no par value to 39,000 shares of no par value.

Chemical Catalog Moves

The Chemical Catalog Company, Inc., moved its offices on Feb. 19 to new and larger quarters at 419 Fourth Ave., New York.

CATALPO!

Financial Items

Rubber and Motors

NORWALK LOST $63,895 IN FOURTH QUARTER

The Norwalk Tire & Rubber Co., Norwalk, Conn., reported for the quarter ended Dec. 31, 1926, a net loss of $63,895, after expenses and depreciation. This compares with a net income of $95,421 in the corresponding quarter of 1925, which was equal after preferred dividends to 50 cents a share on the 149,500 shares of common stock outstanding at the time.

The income account for the quarter compares with that of the corresponding quarter in 1925 as follows:

	1926	1925
Gross profits	$105,959	$277,570
Expenses	140,542	146,590
Net op. loss	$34,582	*$130,980
Other income	2,852	8,583
Total loss	$31,729	*$139,564
Deprec., etc.	32,166	30,381
Net loss	$63,895	*$109,183
Est. Fed. tax	——	13,761
Net loss	$63,895	*$95,421

*Income.

INDIA SALES GAINED 21 PER CENT IN 1926

Stockholders of the India Tire & Rubber Co., Mogadore, Ohio, were told at their annual meeting that net profits for 1926 after depreciation, interest, taxes and all other deductions were $179,131.53. After providing for dividends on preferred stock this amounted to 11.3 per cent on common stock of no par value outstanding. All regular dividends were paid on preferred and common shares.

Net sales for 1926 were $5,585,128.11, a gain of 21 per cent over the previous year.

All directors were re-elected. They are J. M. Alderfer, P. C. Searles, W. G. Lerch, A. T. Kingsbury, C. Fenton, J. R. Williams, H. Lloyd Williams, C. A. Schwan and Sterling W. Alderfer.

TRIANGLE SALES SHOW GAIN OF 42 PER CENT

At the annual meeting of the Triangle Tire & Rubber Co., Canton, Ohio, held Feb. 1 it was announced that sales in 1926 had gained 42 per cent over the previous year, although the company has been in business only two years. Considerable new equipment has been installed with the idea of operating the entire plant with electricity instead of steam.

A department for the manufacture of inner tubes was recently put into operation. The tubes are of the molded type, seamless and spliceless. It was announced that the company now has 1,600 customers in 36 States, or double the number of dealers in 1925. Warehouses are maintained in Kansas City, San Francisco, Atlanta, Milwaukee and Indianapolis.

G. S. Schaeffer was re-elected president at the annual meeting of the new board of directors. Other officers include John Schubach, vice-president; W. E. Schaeffer, vice-president; C. A. Hanner, secretary; John Quinn, treasurer; M. C. Wyatt, assistant treasurer; and I. G. Baughman, factory manager.

The new board of directors consists of the following; G. S. Schaeffer, W. E. Schaeffer, John Schubach, John Quinn, Ned M. Austin, J. E. Sell, Samuel Pace, C. E. Hanner, H. E. Case, G. C. Pontious, M. L. Quigley, N. G. Baughman and M. C. Wyatt.

1926 WAS GOOD YEAR FOR CANADIAN DUNLOP

At the recent annual meeting of the Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont., stockholders were told that the issue of bonds dated March 1, 1912, and amounting to $600,000 had been retired in full through the operation of the sinking fund.

The retirement removed the only bond indebtedness of the company. As the common stock is closely held and not on the market, the calling of the bonds aroused new interest in the 7 per cent cumulative preferred stock issued in 1899, and on which dividends have been paid without interruption since that time, or for 28 consecutive years.

Officers are the Hon. E. B. Ryckman, K. C., M. P., president; John Western, vice-president and general manager; and A. E. King, secretary-treasurer and assistant general manager.

Late Stock Prices

	Last Price		1927	
	Mar. 3	Feb. 17	High	Low
Ajax		11	12⅝	9
Firestone	128	119	128	117
do 6% pfd.	104	104¼	104¼	101½
do 7% pfd.	99	99	99	98½
Fisk	17⅝	17¼	17⅝	16
do 1st. pfd.	85	85	86½	81
General	149	145	150	145
do pfd.	99¼	102½	104¼	99¼
Goodrich	54	52	55⅝	42⅝
do pfd.	99¼	99½	99½	95
Goodyear Com.	37	30¼	37	20½
do pr. pfd.	107	107	107¼	104¼
do pfd.	101½	101	101½	98½
Hood	42½	47	47	42½
India	29	29½	30	29
Intercontinental	14	12⅜	14	11¼
Kelly Springfield	11	10¼	11¼	9½
do 1st pfd.	48½	—	48½	44
do 8% pfd.	46	44½	46	35
Lee	—	—	7¼	7
Miller	33	35½	35½	32
do pfd.	101	104	104	100
Mohawk	15	18	25	15
do pfd.	65	34	65	65
Seiberling	22¼	22	22¼	21⅜
do pfd.	97½	96	97½	96
Star	4k	4k	5	4
U. S. Rubber	64¼	62⅝	64½	57⅞
do pfd.	111	107	111	107⅝
U. S. Rubber Reclaiming	12	12	12	12
do pfd.	87	87	87	87

EXPECT SEIBERLING TO START DIVIDENDS

If Earnings of Seiberling Rubber Company Continue on a Normal Basis, it is Expected that Payments at Rate of at Least $2 a Year will be Started Soon.

Dividends at an annual rate of not less than $2 a share on its common stock may be started this year by the Seiberling Rubber Company, provided the company's business continues to gain and earnings are maintained on a normal basis, it is predicted in financial circles. Net income in 1926 was $359,117, equal to approximately $1.85 a share on the 192,626 shares of common stock outstanding. Despite the heavy losses written off from depreciation of crude rubber inventories, the company on Dec. 31, 1926, reported a surplus available for the common stock of $1,891,242, or $9.60 a share. This brought the book value of the stock up to $19.60 a share. Moreover, the company did not find it necessary to draw on any previously established reserves.

Net income in 1925 was $1,244,967, after preferred dividends and all charges, equivalent to $6 a share on the common stock then outstanding. During the year, 1925, all dividends on preferred stock were paid in full, thus preparing the way for the inauguration of disbursements on the common. It is anticipated that the company will easily earn $5 or $6 a share on common stock this year, provided sales equal those in 1926 and there are no unwarranted tire price reductions.

According to F. A. Seiberling, president, the whole tendency of the industry at present is toward improvement. "We have passed through the period of expansion and from now on the success of the rubber industry will be based on improvement in tire service," he stated recently. "The Seiberling Rubber Company today has the assistance of a great inventor, because we are confident that leadership will come to the company which leads in increasing tire mileage.

"I believe we are going to absorb 4,000,000 new automobiles annually in the United States. New highways are going to be built in this country and throughout the world. This is going to increase our export business and keep our production on a high plane.

"Akron will remain the rubber center of the world. Having seen Akron grow from a village of 4,000 to a thriving industrial city of 200,000, I am now looking forward enthusiastically to the new cycle of development which will be based on improvements in the industry. This new period will be more profitable to consumer and manufacturer than the era of expansion."

GOODYEAR DESIGNS NEW TWO-PIECE TRUCK RIM

A new rim that has been designed especially for trucks and buses has been announced by the Goodyear Tire & Rubber Co. Advantages claimed for the rim, which has been called "Type K," include the fact that it consists of but two parts, a solid endless section and a split section. It is made with a single bevel for mounting on either single or dual metal felloe, and is said to be adaptable to all wheel conditions, making dual wheels for trucks and buses demountable at the rim.

The rim is light in weight, which means that it is not only easy to handle, but represents less unsprung weight—an advantage in economical operation. The new rim is made in 5, 6, 7 and 8-inch truck and bus sizes in 20, 21, 22 and 24-inch diameters.

Reports on World Survey

Walton Schmidt, field representative of the National Automobile Chamber of Commerce, has returned to the United States after an eleven months' survey of automotive trade conditions throughout the world. In every foreign country, Mr. Schmidt says, there is the wish to 'ride on rubber' and a great automotive development may be expected within the next decade. The distance between service stations in most of the countries is so great that more than one spare tire must usually be carried.

The Philadelphia Rubber Works Company

Manufacturer of

RECLAIMED RUBBER

of

STANDARDIZED QUALITY

NEW YORK
52 Vanderbilt Ave.

AKRON, OHIO PHILADELPHIA, PA.
Land Title Bldg.

CHICAGO RUBBER OPENS AN OFFICE IN NEW YORK

The Chicago Rubber Clothing Company, Racine, Wis., manufacturers of rubber coats, slip-ons, rubberized fabrics, hospital sheetings and blankets, has opened a New York office at 1270 Broadway, with Robert Watt as manager. Mr. Watt was formerly associated with the C. Kenyon Company, Brooklyn, and has had wide experience in the raincoat and rubber clothing business. In opening the New York office, the company was motivated by the desire to serve better its eastern customers, as well as to be in a position to work with its customers from other sections of the country when the buyers enter the New York market.

The company also announced that Ernest Buecher, who was for many years superintendent of the C. Kenyon Company, is now general superintendent of the factory at Racine. Mr. Buecher's thorough experience and the improved facilities that have been added in the past year are two factors which place the Chicago Rubber Clothing Company in a better position than ever before to serve its trade.

Republic Rubber Busy

The Republic Rubber Company, Youngstown, Ohio, subsidiary of the Lee Rubber & Tire Co., is operating its factory at 85 per cent of capacity, owing to the demand for mechanical rubber goods of all kinds. Production increases are contemplated. The company recently completed a new compounding room to facilitate operations and reduce costs.

British Chemical Booklets

In a series of booklets just issued, the British Dyestuffs Corporation, London, gives interesting details of the firm's accelerators, anti-oxidants and rubber service laboratories. The company claims that its anti-oxidant, "Nonox", which was recently introduced, has little or no accelerating effect and exhibits valuable softening properties.

McLean Tire Plant Sold

The Patterson Foundry & Machine Co. has purchased the old plant of the McLean Tire & Rubber Co., East Liverpool, Ohio, and plans to erect a new building adjoining it. The deal included a tract of land 240 by 280 feet and a two-story brick building, 240 by 110 feet. The building will be remodeled. The factory, which has been idle for more than a year, was last occupied by the Pittsburgh Tire & Rubber Co.

CATALPO!

GOODRICH SALES GAIN BUT PROFIT DECLINES

B. F. Goodrich Company Reports Net Profit of $5,065,110 on Sales of $148,391,478, which Compares with Net of $16,744,447 on Sales of $136,239,526 in 1925.

The B. F. Goodrich Company, Akron, for the year ended Dec. 31, 1926, has reported net profit of $5,065,110, after all charges and taxes and after crediting the income account with a contingency reserve of $5,000,000 set up in previous years. Without this reserve, earnings were only $65,110. Net profit for 1926 is equal to $14.19 a share of preferred and $4.16 a share of common, and compares with $40.60 a share on the preferred stock and $17.32 on the common earned in 1925 when net profit was $16,744,447 before deducting a contingency reserve of $4,000,000.

Despite a gain of 8.9 per cent in sales for the year, the B. F. Goodrich Company, like so many others in the industry, was adversely affected by the crude rubber situation. Net sales of $148,391,478 in 1926 compare with $136,239,526, for the previous year, an increase of $12,151,952.

Current assets, as of Dec. 31, 1926, amounted to $62,878,779, against current liabilities of $6,624,651. This resulted in an improvement of the current ratio of 9.5 to 1, as compared with the current ratio on Dec. 31, 1925, of 3.5 to 1.

In his remarks to the stockholders, B. G. Work, president, said in part: "Our earnings for 1926 were adversely affected because of the rapid decline in the prices of crude rubber during the early part of the year, necessitating downward revision in selling prices. This condition was general throughout the industry. The company is adequately covered for its raw material requirements at prices approximating current market quotations.

"The directors have voted...to retire 11,880 shares of preferred stock, 6,044 shares of which were in the treasury at the close of the year, the balance of 5,836 shares having been purchased since Jan. 1, 1927."

Consolidated income account for the last two years compares as follows:

B. F. GOODRICH COMPANY

Consolidated Income Account

	1926	1925
Net sales	$148,391,478	$136,239,526
Exps.	138,640,095	113,860,422
Net op. inc.	$9,751,383	$22,379,104
Misc. income	770,280	1,020,035
Total inc.	$10,521,673	$23,399,139
Deprec.	2,481,103	2,377,192
Interest	2,975,460	1,927,500
Fed. taxes	....	2,350,000
Net profit	$5,065,110	$16,744,447
*Res. for contg.	....	4,000,000
Net inc.	$5,065,110	$12,744,447
Pfd. divs.	2,560,670	2,314,620
Com. divs.	2,406,240	1,202,800
Surplus	$98,200	$9,227,027
Prev. surplus	$24,770,125	$17,609,966
Surpl. prev. appr for am. of war facil.	1,225,064	....
†Diff. bet. cost & par. val.	13,875	58,643
Total surpl.	$26,107,264	$26,895,656
Diff. bet. cost of affil. co. acq. & val. of its net assets	3,187,279	....
Pri. yr. Fed. tax	1,762,506	685,691
Cost issue bonds	....	1,439,821
P. & L. surpl.	$21,157,479	$24,770,124

*Reserve for recovery of possible losses due to fluctuations in prices of raw material. †Of preferred treasury stock purchased for redemption.

COURT DENIES RECEIVER FOR LAURSEN PROCESS

L. A. Laursen, 972 Hereford Drive, Akron, inventor of the water cure process for vulcanizing inner tubes, will continue to receive $300,000 a year in royalties from rubber companies, following the decision of Judge Westenhaver in Federal Court at Cleveland Feb. 17. The Court refused to grant a permanent restraining order or a receivership on Mr. Laursen's royalties after a hearing to lift a temporary injunction recently granted.

The temporary order was issued after Harry L. Lowe of Eau Claire, Wis., testified that he and Mr. Laursen entered into a joint agreement to sell the process to rubber companies. Mr. Lowe claimed a 20 per cent interest in the invention.

Among the companies now using the Laursen Process are the Seiberling Rubber Company, Goodyear Tire & Rubber Co., B. F. Goodrich Company, Mansfield Tire & Rubber Co., United States Rubber Company and the Ajax Rubber Co.

START PRODUCTION AT NEW GOODYEAR PLANT

Vice-President Clifton E. Slusser and Manager S. A. Steere Dedicate Tire Fabric Mill at Cedartown, Ga.—30,000 Spindles Will be Operated Day and Night.

Clifton E. Slusser, vice-president, and S. A. Steere, manager of the fabric division, dedicated the new tire fabric mill of the Goodyear Tire & Rubber Co. at Cedartown, Ga., on Feb. 21. Production started that day will be continued day and night on 30,000 spindles. The mill will therefore be equivalent in capacity to a 60,000 spindle plant.

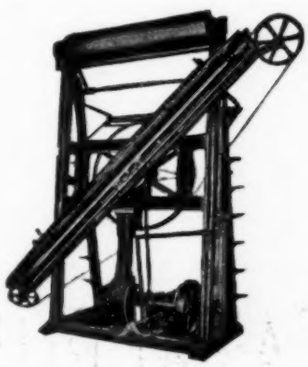
Completed in Record Time

The Clearwater mill, as it is called, was purchased July 1, 1926, and work o remodeling the building started Aug. 11. In six months the mill was enlarged to twice its original size, the number of spindles was increased 18,000, 97 employees' homes were built, 52 remodeled and a new fireproof factory building with 234,000 square feet of floor space constructed. The new mill is the largest in tonnage capacity owned by the company.

Including the new mill and four others, the Goodyear company will be able to manufacture approximately 50 per cent of all the tire fabrics consumed in its tire factories, it was announced. The company now owns and operates tire fabric mills with 150,000 spindles which have a capacity of approximately 40,000,000 pounds of tire fabric a year. Other mills are located in Connecticut, Massachusetts, California and Quebec.

After Messrs. Slusser and Steere had started the initial spindle in operation they returned to the Wayside Inn at Cedartown where a banquet was tendered that evening to officials in charge of the new mill.

CATALPO!



The Bolton Vertical Bias Cutter

WE HAVE PERFECTED many improved devices for our Bias Cutter which simplify its operation, increase its efficiency and promote greater economy in operation.

Cuts cord or flat woven fabrics with equal ease and precision. Cutting range from 1-4 inch strips to 60 inch. Bias blocks on any angle from the horizontal to 45 degrees.

SPADONE MACHINE CO., INC.

15 PARK ROW NEW YORK, N.Y.

Foreign Representatives: Francis Shaw & Co. Ltd., Bradford, Manchester, Eng.

Personal Items

G. W. Sawin, manager of automobile tire sales for the B. F. Goodrich Company, with headquarters at Akron, recently completed a tour of the southeastern states in company with B. W. Cotton, southeastern district manager. All of the Goodrich branches were visited en route and Mr. Sawin returned to his office much impressed with the prospects for the coming season.

* * *

Harrison E. Howe, editor of *Industrial and Engineering Chemistry*, was one of three chemists who were awarded the order of Officers of the Crown of Italy for promoting international good will through the medium of chemistry. Presentation was recently made by the Italian Ambassador, representing King Victor Emmanuel.

* * *

Haywood M. Taylor has resigned as research chemist for E. R. Squibb & Sons, Brooklyn, N. Y., to join the Fisk Rubber Company, Chicopee Falls, Mass., where he will do organic research work.

* * *

F. C. Allen, of the export sales department of the Firestone Tire & Rubber Co., with headquarters at Wellington, New Zealand, is visiting the general offices at Akron. It required six weeks to make the trip.

* * *

A. H. Frazier of the real estate department of the Goodyear Tire & Rubber Co., Akron, has been elected superintendent of the Peoples Hospital in Akron.

* * *

Arthur H. Young was the chief speaker on the program of the Fourth Employees' Night held Jan. 28 by the Goodyear Tire & Rubber Co. His topic was the relations between management and employees.

* * *

Edward B. Germain, president of the Dunlop Tire & Rubber Co., Buffalo, N. Y., has been elected to the board of directors of the Marine Trust Company, Buffalo.

* * *

L. L. King of the Goodyear Tire & Rubber Co. has been appointed chairman of the outdoor advertising committee of the Association of National Advertisers.

* * *

P. W. Litchfield, president of the Goodyear Tire & Rubber Co., was the principal speaker at the fifth employees' night meeting at the Goodyear Theatre Feb. 26.

* * *

D. A. Ross, manager of the Liberian plantations of the Firestone Tire & Rubber Co., is en route to Akron to meet Harvey S. Firestone, Jr., with whom he will formulate a plan for extending the plantations.

* * *

R. E. Hastings, branch manager of the Kelly-Springfield Tire Company at Pittsburg, has been appointed branch manager at Newark, N. J. J. A. Horner, who has for many years been a salesman at the Baltimore branch, has been named as Mr. Hastings' successor at Pittsburgh.

* * *

H. E. Field, vice-president and general sales manager of the Lee Tire & Rubber Co., Conshohocken, Pa., accompanied by J. H. Simons, manager of the southwest sales division, with headquarters at Kansas City, both of whom are former Denver salesmen, attended a recent conference of Lee dealers at the Cosmopolitan Hotel, Denver, Colo.

* * *

J. Newton Smith has been appointed treasurer of the Boston Woven Hose & Rubber Co. to succeed the late George H. Burgess.

* * *

John G. Gates, secretary-treasurer of the Gates Rubber Company, Denver, Colo., accompanied by Mrs. Gates is spending six weeks in Hawaii on a combined business and pleasure tour.

IT PAYS TO MICRONIZE

PROTECTION

AS every manufacturer knows, a hose wears out even more quickly from lack of use than from excessive service.

The inactive hose must be protected from sunlight, oil and grease, all of which spell deterioration. Allowance must also be made for stubborn kinks and the strain upon the hose when it has been coiled and hung up.

In use, it is subjected to dragging, stone cuts, sharp curves and other abuse.

In order that the cover and the inner tube may be kept resilient under all conditions, the rubber compound must be strengthened with that agent which insures greatest tensile strength,—

MICRONEX

Reg. U. S. Pat. Off.

The World's Standard Gas Black

—which reduces deterioration, strain and the destructive forces of foreign elements and sunlight to a minimum.

Investigate the merits of MICRONEX at once. Quotations and samples upon request.

Binney & Smith Co.
41 E. 42nd Street-New York City

CATALPO!

U. S. RUBBER ANNOUNCES CHANGES AT HARTFORD

Three important changes in the management of the Hartford Rubber Works, Hartford, Conn. have been announced by S. P. Thatcher, second vice-president of the United States Rubber Company in charge of tire production.

John J. Shea, vice-president and factory manager at Hartford, relinquishes his duties in the latter capacity, being succeeded by Earl L. Bryant, superintendent. Edward H. Little, vice-president, has been appointed assistant to the second vice-president of the United States Rubber Company. Charles B. Wittlesey continues as president of the Hartford Rubber Works.

It was stated that in recognition of 35 years of service, the United States Rubber Company had decided to give Mr. Shea relief from active responsibility for production at Hartford. He will continue as vice-president and will serve in a consulting capacity not only for the Hartford factory, but for all United States tire factories.

NEW AIRPLANE TIRE IS ANNOUNCED BY GOODYEAR

The Goodyear Tire & Rubber Co., Akron, has announced the first airplane tire bearing a non-skid tread. Since 1905 the Goodyear company has been manufacturing airplane tires, but the new tire was designed in response to a steadily increasing demand for a 20 x 4 tire from plane manufacturers and owners of small ships in various parts of the country.

In adding the Goodyear All-Weather tread to its airplane tire line, the manufacturers believe that the new tire will be a factor of importance to airplane builders, particularly where brakes are employed. The new tire is the smallest standard size ever made in the Goodyear factory for airplanes, the others ranging in size to the 54 x 12, used on the largest planes.

Scrap Warehouse Damaged

The scrap rubber warehouse of H. Muelhstein & Co. in Jersey City, N. J., was damaged in a fire that swept the river front March 2. The loss was fully covered by insurance. Business of the firm is being continued without interruption.

Announce Toledo Changes

The Goodyear Tire & Rubber Co. has announced a number of changes at its Toledo, Ohio, branch. P. W. Senour, manager for the past eight years, after similar work in El Paso, Salt Lake City and Denver, as well as special sales work in New York and Denver, has been transferred to Los Angeles. George W. Kemmerer, who is to succeed him as manager of the Toledo branch, came from St. Louis, in which territory he has served the company for the last seven years.

L. J. Ansell, for the past five years in charge of mechanical sales in Northwestern Ohio and in the entire State of Indiana, has been transferred in a similar capacity to San Francisco. T. B. Walker will be in charge of mechanical sales at the Toledo branch.

TO USE RUBBER ARMOUR ON BULLFIGHTING HORSES

A special rubber armour made from scrapped tires was scheduled to be tested at Oviedo, Spain, March 6 by a special commission named to make the Spanish bullfight humane. It has been designed to eliminate the goring of horses by bulls. A steel armour has been rejected because it was claimed that the bulls, unable to penetrate to a horse's body, would refuse to attack the animal. The commission, after examining a dozen types of armour and hearing arguments for each type, selected rubber and fixed the date for the tests.

T. A. MAGUIRE ELECTED PRESIDENT OF SERVUS

T. A. Maguire was elected president and general manager of the Servus Rubber Company, Rock Island, Ill., at the organization meeting of the following board of directors: H. H. Cleveland, T. A. Maguire, W. A. Rosenfield, H. E. Curtis, I. S. White, C. A. Beers, L. B. Icely, M. S. Heagy and C. A. Hallgren.

ANOTHER PHILIPPINE SURVEY IS SCHEDULED

Arthur Fischer, chief of the Bureau of Forestry of the Philippine Islands, who has been in the United States for several months, expects to return to his post in Manila at an early date accompanied by a large delegation of Congressmen who will devote a part of the summer to a Philippine investigation. Mr. Fischer is keenly interested in the possibilities of establishing a rubber plantation industry in the Islands and he expects the Congressmen to give particular attention to that phase of the Philippine question.

Dunlop Places Account

The Dunlop Tire & Rubber Co., Buffalo, N. Y., has turned its advertising entirely over to Barton, Durstine & Osborn, an agency which has acted in an advisory capacity for the past year. The decision to permit the agency to handle all the business was made following the resignation of G. O. MacConachie as advertising manager for the company.

George H. Burgess

George H. Burgess, associated for 30 years with the Boston Woven Hose & Rubber Co. and for several years treasurer and a director of the company, died Feb. 16 at his home, 93 Perry St., Brookline, Mass. He was a member of the Boston City Club and the Chesnut Hill Golf Club.

LATEX TIRE COMPANY RE-ELECTS O. J. KOLL

Orlando J. Koll was re-elected president of the Latex Tire Company, Fond du Lac, Wis., at the annual meeting held recently. Other officers elected included E. J. Shaw, vice-president; Nathan Haessly secretary; F. H. Boyle, treasurer. Directors elected were E. J. Shaw, F. H. Boyle, Joseph Guelig, S. F. Wehrwein, Nathan Haessly, O. J. Koll, Edwain C. Sanders, Howard Shields, Leo Koll and Matthew Simon.

Reports of the company showed favorable operations for the past year and indicated greater strides during the coming year. The company has made unusual progress in the volume of business especially in opening up new dealer accounts. A branch in Nashville, Tenn., to facilitate shipments to Kentucky, Tennessee, Alabama and Georgia was opened in 1926.

H. C. Reis, superintendent and production manager for the past four years, gave a report which showed the steady increase in the production of Latex tires each year. Reports on the company's retail stores showed a fine volume of business also.

CHEMICAL INDUSTRIES SHOW SLATED FOR FALL

Numerous details of the coming Chemical Industries Exposition, which is to be held in Grand Central Palace, New York, Sept. 26 to Oct. 1 inclusive, were discussed at a recent meeting of the advisory committee at the Chemists Club in New York. Charles F. Roth, co-manager of the Exposition, reported that three floors of the building had already been reserved.

The students' course, which will be held during the Exposition, is divided into two groups, an elementary and an advanced class. Manufacturers and producers will display new synthetics, dyes, solvents, pharmaceuticals, chemicals, laboratory supplies, apparatus and instruments at the Exposition.

GILMER COMPANY IS NOW MAKING RADIATOR HOSE

The L. H. Gilmer Company, Philadelphia, Pa., manufacturer of fan belts and woven products, has begun the production of a new radiator hose which is designed to resist to a large degree the action of hot water, as well as oil and anti-freeze solutions. Officials of the company state that the hose has a tough rubber lining and is reinforced with three plies of woven fabric.

CATALPO!

MACHINERY

We Have on Hand for Prompt Shipment, Machinery and Equipment for Every Branch of the Rubber Trade. All Machines We Offer are in Guaranteed Working Condition and are on the Floors of our Three Warehouses. The Following are some of our Offerings—

No. 2, No. 3, No. 4 Royle Perfected Tubing Machines.
42″ and 62″ Cameron Slitting Machine.
24″ x 24″ Southwark, Vaughn and Hydraulic Press Mfg. Co.'s Hydraulic Presses.
20″ x 22″ x 60″ Vaughn Individual Mill Unit with Motor and Drive.
24″ x 66″ Birmingham and Allen Calenders.
Hydraulic Belt Presses, Single and Double Ram.
Werner & Pfleiderer No. 15 Jacketed Mixer.
50 Gal., 75 Gal., 100 Gal. and 200 Gal. Day and Ross Cement Churns.

L. ALBERT & SON, INC.

Warehouses: TRENTON, N. J. AKRON, OHIO
Offices: TRENTON, N. J. AKRON, OHIO

Pigmentar

Is all pure, Retort Pine Tar, containing no free water or other foreign matter.

Reduces compounding and volume costs; Milling, Compounding and Tubing are made easier, and cheaper rubbers can be used.

PIGMENTAR is now used in large volume by most of the leading rubber companies in the United States and has been found to be more efficient and economical than other softeners. Shipped under the following brand names:

Pentarco - Sunny South - American

May we have the privilege of sending you samples and naming prices?

E. W. COLLEDGE, INC.

GENERAL SALES AGENT

P.O. Box 356 Jacksonville, Fla.

REPRESENTATIVES

NEW YORK CITY — J. C. Mathews, 300 Madison Ave.
CLEVELAND, O. — Tyler-Patterson Co., Cuyahoga Bldg.
CHICAGO, ILL. — S. S. Skelton, 1605 Kimball Bldg.
BOSTON, MASS. — Hird & Connor, Inc., 88 Broad St.
TRENTON, N. J. — American Oil & Supply Co.

PARA-FLUX *A Universal Softener*

(Reg. U. S. Patent Office)
(U. S. Pat. No. 1,611,436)

for TIRES, MECHANICALS, RECLAIMS *and* FRICTION TAPE

The C. P. HALL COMPANY

118 Central Savings & Trust Bldg. AKRON, OHIO

RECLAIMED RUBBERS

UNIFORM RED BLACK GREY RELIABLE

THE DEFIANCE RUBBER COMPANY

DEFIANCE, OHIO

BUREAU OF STANDARDS STUDYING COMPOUNDS

The Bureau of Standards in a recent announcement told of its study of the effect of humidity and temperature at time of test on the tensile properties of rubber compounds. This work is being done in conjunction with the American Chemical Society. A definite program has been laid out and the work is being conducted under the direction of a physical testing committee appointed by the Rubber Division of the American Chemical Society, the Bureau of Standards being represented on the committee.

The rubber compounds used have been prepared and vulcanized under carefully controlled conditions in order to eliminate all variables that might affect the results. The experimental work is being carried on in a constant-temperature room controlled thermostatically, which permits tests to be made over ranges between 4.4 deg. C. (40 deg. F.) and 43.3 deg. C. (110 deg. F.). Samples for test are stored in cabinets that are maintained under atmospheric conditions varying from 0 to 100 per cent relative humidity.

O. S. TWEEDY TO MANAGE BRANCH SALES FOR AJAX

O. S. Tweedy, who helped to organize Tweedy-Mowe, Inc., in October, 1924, to act as selling agent for several tire manufacturers, has joined the Ajax Rubber Company, New York, in the capacity of manager of branch sales—a new office. F. M. Hoblitt, vice-president of the Ajax company, has relinquished his duties in connection with dealers' sales and will devote his time to the promotion of manufacturers' sales. L. M. Van Riper, general sales manager, will continue in that capacity.

Mr. Tweedy has been identified with the automobile tire industry practically since its inception. For ten years he was western sales manager of the old Diamond Rubber Company, and eastern district manager and general branch sales manager of the United States Rubber Company for another long term. Previous to the formation of the Tweedy-Mowe organization, he had been vice-president and general manager of the McKone Tire & Rubber Co., Millersburg, Ohio, a post he continued to hold for some time afterwards.

Tweedy-Mowe, Inc., which had offices at 250 West 57th St., New York, was replaced some time ago by the Twemo Corporation when Mr. Tweedy left the organization. The Twemo Corporation now holds the patents on the Fairchild process for manufacturing inner tubes.

O. S. Tweedy who has Joined the Ajax Rubber Company as manager of Branch Sales

TAUNTON TO MAKE NEW LINE IN LARGER PLANT

The Taunton Rubber Company, Taunton, Mass., has leased the factory of the Greenfield Tap & Die Co. in Taunton, affording an additional 50,000 square feet of space and will manufacture sponge rubber specialties, including some which are now in common use in connection with radio sets.

During the past eight years the company has increased its sales of rubber heels and soles from $50,000 a year to $500,000, and now employs 110 persons. It is planned to issue additional stock to increase capital from $90,000 to $150,000.

William L. Gifford is president of the company, and J. L. Gifford, treasurer.

Sell Wooster Control

T. E. Rice and John Overholt have sold their holdings in the Wooster Rubber Company, Wooster, Ohio, manufacturer of toy balloons and other rubber toys, to H. E. Ebert and E. M. Grable.

BEGIN CONSTRUCTION OF TIRE FABRIC MILL

Work has begun on the erection of a tire fabric mill for the Connecticut Mills Company at East Albany, Ala. When completed the mill will have cost approximately $2,100,000. Construction of the foundation for the main building has almost been finished. Additional contracts aggregating about $86,820 were recently let for the installation of a heating plant, a sprinkler system and other equipment.

Announce New Rubber Belt

The HiLaB Products Company, a division of the Hide Leather & Belting Co., Indianapolis, has announced a rubber fan belt which will be marketed under the trade name "HiLaB". The new belt gives the company a line of fan belts of considerable size.

Kelly to Build Addition

The Kelly-Springfield Tire Company, New York, plans to construct an addition to its present plant on Kelly Boulevard, Cumberland, Md. The building will be three stories in height and it is estimated that it will cost more than $175,000, with equipment. It is believed that plans will be ready for bids early in March.

I. B. Kleinert Elects

All officers of the I. B. Kleinert Rubber Company, New York, were re-elected at a meeting Feb. 21. These officers are: Victor Guinzburg, president; Ralph K. Guinzburg, first vice-president; H. I. Kleinert, second vice-president; A. B. Salinger, secretary; and C. B. Mergentime, treasurer. The board of directors consists of the officers and George K. Guinzburg.

To Use Akron Airship

Lieut. Commander Richard E. Byrd, in a lecture delivered Feb. 21 at the Goodyear Theatre in Akron, said that he contemplated a flight to the South Pole in an Akron-built airship. His appearance was to benefit the Akron Chapter of the National Aeronautic Association.

VANSUL

Rubber Colors, Pigments & Fillers

Clay
Barytes
Sulphur
Lithopone
Red Oxide
Stearic Acid
Vansulite Whiting

A Complete Line of Chemicals and Compounding Materials
Especially Processed for the Rubber Industry.
Complete Problem Laboratory for your use.

M.R.
Mica
Colors
Palm Oil
Chrome Green
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Shares in Rubber Estates

ATTENTION HAS recently been drawn by the London *Daily Mail* to the fact that the oil share market rivals the mining share market in its proportion of non-dividend-paying concerns. It was shown that of eighty oil companies only seventeen were paying dividends. However, the oil market has the advantage of free marketability and it is generally possible to obtain close prices in the lower-class non-dividend-paying variety.

This affords a very curious contrast with the rubber estate share market. The latter can boast of a high standard of dividend-paying companies combined with very poor marketability at the present time. The names of no less than 532 rubber shares appear in the official and supplementary lists of the London Stock Exchange, of which only 51 are non-dividend payers, and most of these are newcomers.

According to our correspondents, at the present time barely twenty of these 532 companies enjoy a genuine free market, owing to the extraordinary boom of 1925 and the expectation of more good times in the crude rubber industry. This does not mean that one cannot deal in shares of most of the rubber companies for jobbers are prepared to make prices in all except some out-of-the-way companies. However, the prices that are quoted under these conditions are necessarily extremely wide owing to the paucity of the business. The situation is unsatisfactory to members of the Stock Exchange and the public alike. Trading in the shares is really best conducted by negotiation.

This attitude on the part of the shareholders surely means that they do not view the present stocks of crude rubber in just the same way as some manufacturers. It would not be surprising if it proved that the rubber shares were worth holding onto just as tightly as is being done.

The recent proposal to have foreign shares traded in on the New York exchanges would be robbed of much of its interest for the rubber industry if there were no free trading in rubber plantation shares.

Congress Adjourns

THE SIXTY-NINTH Congress has happily adjourned without attempting in its closing session to follow up the attention which it gave the rubber situation more than a year ago. Feeling no pressure from the home districts since the price of finished rubber goods is now too low to cause complaint, the legislators took no more turns at trying to twist the British lion's tail as was their pleasure a year ago. A year hence conditions may have changed so that the opportunity will not stand overlooking.

The Bacon bill, which would separate the southern Philippines from the Manila government, was lost. It is now understood that before Congress meets again a large delegation of Representatives and Senators will journey to the Philippines to make an investigation on which future legislation will be predicated to some extent. They will thereby be shelving the Thompson report to which the present Congress did not give formal attention. Once they are in the islands, the independence question will no doubt rise as usual to monopolize their attention.

With a spring's tire business at stake, it is with real relief that the rubber industry sees Congress take leave of its labors. Any effort of the Committee on Interstate and Foreign Commerce to delve further into the rubber question, as threatened in the report they filed after last year's investigation, would undoubtedly have had the same cramping effect on the sales of finished goods. The danger is only temporarily passed, however, for whenever the price of rubber rises considerably, as sooner or later it must, we shall again see Congress interested in the rubber industry.

The Auto Replacement Market

THE FUTURE of the automobile industry, about which there has frequently been doubt expressed outside the industry itself, appears safe enough when one considers the breadth of the normal replacement demand. The increase in the production of automobiles has actually been less than the increase in the elimination of machines in the United States. It is therefore possible for the industry to maintain a high production without finding an equal number of new buyers each year.

According to one recent computation, an annual production of 4,000,000 automobiles in 1927 would call for sales of 1,700,000 to persons who had not had a car in the past. The same production in 1928 would require only 1,500,000 new buyers and 1,200,000 would suffice in 1929. All these figures assume an annual export of not more than 200,000 cars whereas that number will no doubt be exceeded.

It is pointed out that the trend toward consolidation in the automotive industry should make the business more stable, as well as more prosperous for the larger manufacturers. In 1926 half of the cars produced came from Ford and General Motors plants.

One outlet for expansion in the industry is seen in the increase in production of commercial trucks and busses. This is also a field which the tire manufacturer is eagerly watching. The production of passenger cars has more than doubled in the ten years ending with 1926 but the number of trucks and busses made in 1926 was five times that of 1916. The importance of these larger units as sources of replacement tire demand is well understood.

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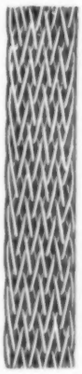

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Turning Latex Into Sheet Rubber by the Emka Process

Details of Process Devised in Java Are Explained to American Companies by Representative of the Inventors

THE EMKA process of preparing crude rubber, of which Americans have heard a great deal but have had almost no detailed information, has been fully explained in the United States during the last fortnight and aroused considerable interest. The explaining was done by W. F. Klusman, a Dutchman who has spent some eighteen years in the Netherlands East Indies and is now representing the inventors of the process.

Mr. Klusman brought to the United States many samples of rubber prepared by the new process and had also a moving picture to show the exact methods by which the work was done. These were exhibited to Akron and New York rubber companies before Mr. Klusman continued on his way to the Netherlands.

The chief merit of the Emka process in the eyes of its inventors and their representative is that there is no machinery used in it which they say results in its being not only simple but cheap as well. The process may be briefly described as follows:

The latex, which has been brought in from the plantation in the regular way, is diluted with water until a solution containing only fifteen per cent of rubber is obtained. A small amount of sodium bisulphite is stirred in after which acetic acid is added in the usual way. Having been thoroughly stirred, this mixture is allowed to rest in the coagulating pans until coagulation is accomplished.

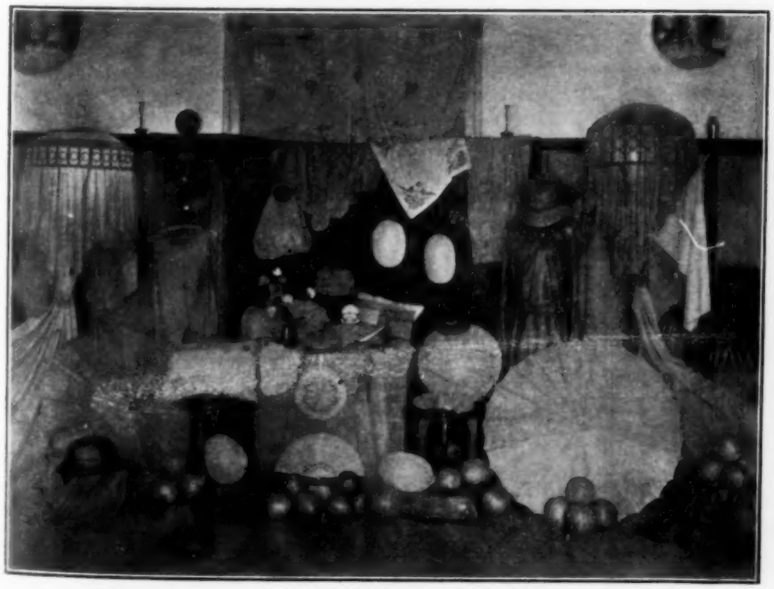
The coagulum, or sheet of raw rubber, which is soon found in the pan, is removed to a table and the excess of water brushed away or forced out by a quick rolling with a rolling pin or bottle. The sheet of raw rubber is then folded once over. The edges, where they meet on three sides, are pinched together to make a permanent joint, that is, they are pinched together except at one corner where an opening is left for the insertion of the nozzle of an air line or a bicycle pump. The nozzle having been inserted, the rubber is made snug around it so that no air may escape. The sheet has thus become a bag with a nozzle in its mouth. Then the air pressure is turned on, or the pumping begins, and the bag gradually becomes a balloon.

A little experience, Mr. Klusman says, soon shows how far the balloon of raw rubber may be inflated without bursting it. The bigger the balloon is blown, the thinner the rubber will be and the quicker it will dry. The limits on the size of the balloon are determined by the size and thickness of the raw rubber sheet which in turn is determined by the shape and depth of the coagulating vessel. The balloon may, of course, contain only a few ounces of rubber or it may contain several pounds. It may be round or sausage shaped. Some balloons are made with a length of ten feet or more.

The raw rubber balloon having been blown as big as appears possible without bursting, the pumping ceases and the nozzle is withdrawn. The balloon is sealed by pinching together the rubber where the air was admitted. The balloon is then allowed to dry. Within a few hours it is completely dry, the thinness of the rubber membrane being such that a short drying in the open air is all that is necessary. It is claimed that by the Emka process latex gathered in the morning can be turned into rubber ready for the market by four o'clock in the afternoon of the same day. While definite statements about exposing the balloons to the sun to hasten drying were not made by Mr. Klusman, it appears that the inventors suspect that drying in the sun will not yield as good rubber as drying in the shade.

When the balloon is dry, it is given a dressing of talc on the outside to remove any stickiness. The mouth of the balloon (the part that was sealed after the pumping had been completed) is next cut off. The balloon deflates but the membrane retains the full size in which it dried. The inside of the balloon is given a coating of talc although this may be omitted when water has been used instead of air in inflating it. The balloon is next cut open, completing the process. A smooth, thin sheet of rubber is the result.

The Emka rubber sheets wait only to be folded and packed in cases like regular crepe or smoked sheet, and the rubber



The upper view shows an Emka balloon which has been dried but not yet cut open. It contains several square feet of unvulcanized rubber sheet. A finished sheet is seen hanging on the fence. In the view to the left is seen a wide variety of articles made of Emka rubber.

is on its way to market without machinery having been used at all in its manufacture. The use of a compressed air system instead of the bicycle pump would be recommended where it could be afforded in order to save the labor of hand pumping. The small native planter would be expected to use a bicycle pump or similar cheap apparatus, while European estates would most surely bring into use some sort of a compressed air system. Elaborate machinery of any sort, the inventors point out, would be totally unnecessary in converting latex into absolutely clean rubber. If desired, the raw rubber balloons could be inflated by water pressure or even by steam although the latter has not been fully tried out.

The Emka process is expected to be of particular interest to small rubber planters and to native rubber producers since it will not only enable them to produce rubber without expensive equipment but they will be able to offer a much better grade of rubber than is coming from native areas today. Since the rubber the native is now offering is so dirty and so poorly prepared that it must be remilled before it is suitable for the consuming markets, he must sell it at a considerable discount. By the Emka process, Mr. Klusman points out, every native or small planter can produce absolutely first-quality rubber without the installation of machinery. The large rubber estates, which can afford all the machinery needed, will nevertheless be attracted to the Emka process, it is said, by its cheapness as compared to the elaborate factory methods now in use.

Exact cost figures under the Emka process have not been made public since the inventors feel that they have not tried it out on a sufficiently large scale to arrive at final costs. They say, however, that they are ready to convince interested companies of the economy of the process.

Direct Production of Rubber Articles

But in the opinion of the inventors, the Emka process has great possibilities aside from preparing crude rubber for the market. They refer to the manufacture of rubber goods direct from the thin sheet rubber which the process produces without reworking it in a rubber factory. They point out that the raw rubber sheet can be made automatically in any gauge by varying the extent to which the balloons are inflated. The thickness of the sheet will be uniform throughout on account of the equal pressure of the air or water used in forming the balloon. Furthermore, the sheeting has a smooth, velvety texture on both sides. Colors may be secured by mixing coloring agents in the latex before coagulation is begun. Lastly, sulphur may be also mixed in the latex before coagulation so that the resulting sheet of rubber is all ready for a hot or cold cure.

Following these principles, the inventors have produced a large number of rubber articles from Emka rubber. These include raincoats, umbrella covers, scarfs, decorative drapes, etc. Some of these are shown in the accompanying illustration, a similar assortment being displayed at the Paris Rubber Exhibition a month ago. It is claimed that the cost of producing rubber articles in this way is only a fraction of the regularly used processes of producing sheet rubber and converting it into finished rubber goods.

With regard to the Emka process, Dr. O. DeVries, the well-known rubber expert and director of the rubber experimental station at Buitenzorg, Java, has stated:

"A visit to the estate experimenting on the Emka process entirely confirmed my opinion that the idea upon which this process is based unquestionably must be considered perfectly new. Nothing even remotely like it is known to me.

"This simple process for the preparation of rough rubber in "film" shape is decidedly interesting. Considering the enormous cutting down of the cost of manufacturing I am convinced that it is highly promising for the fabrication of rubber articles."

Dr. Rutgers Said to be Interested

Dr. A. A. L. Rutgers, Director of Agriculture for the Netherlands East Indies, is also reported to be much interested in the Emka process. J. G. Fol, propaganda secretary of the International Association for Rubber and Other Cultivations in the Netherlands East Indies, recently announced that he was not sufficiently informed to recommend the process but the inventors point out that Mr. Fol has not expressed any disagreement with their claims for it.

The inventors are A. R. Van der Mark of Weltevreden, Java, who is the superintendent of several rubber estates, and H. Kremer, manager of a rubber estate at Meloewoeng, Java. It is on this latter estate that the experiments have been conducted exclusively. The name Emka is secured by joining the initials of Messrs. Mark and Kremer. The inventors have secured patents on their process in several countries. Emka rubber is not yet on the market; the small quantities produced are being used experimentally. Since the rubber is not washed after coagulation, there is expected to be some slight difference between it and the crepe or smoked sheet rubber now on the market. Whether this difference would be in favor of the Emka rubber or against it remains to be determined. It is planned to furnish samples of the rubber to American factories so that comparisons can be made. Some factories have already ordered large samples.

Having protected their patent rights, the inventors expect to permit the use of the process on a royalty basis. Since the collection of royalties from the thousands of native producers would be out of the question, the inventors will try to induce the Netherlands government to arrange for the process for the natives. It will be remembered that an export duty of five per cent is already levied on native rubber in the Netherlands East Indies and it would be a simple matter to increase such a tax a trifle to cover the royalties. The value of native rubber, through improvement in quality, is expected to be greatly increased by the process as noted above and this alone would mean greater revenue to the government. Mr. Klusman is convinced that the government will take the desired action. Separate arrangements will be made between the inventors and the European estates.

Mr. Klusman left New York on February 26 for The Hague where he may be addressed in care of Mr. Mensing, v. Boetselaarl 121.

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The Rubber Market Outlook

Situation in Present Year is Similar to 1924 But Certain Factors Should Forestall Such Fluctuations as Marked 1925

STATISTICAL observers in the rubber industry have been asking themselves how much likelihood there is that rubber will repeat in 1927-28-29 the same general movement that it followed in 1924-25-26, and whether it is apt to bring as much grief to the consumer and as much disappointment to the producer. Before attempting to analyze what may lie ahead, it may be well to review briefly what has happened in the past. The three year cycle which ended with 1926 ran about as follows:

1924: Stocks of crude rubber regarded as ample but steadily declining; rubber prices weak or barely steady; exportable percentage under restriction scheme being reduced regularly; price of finished goods low.

1925: Sudden realization that stocks are no longer ample and that the rate of production does not equal that of consumption due to severe restriction in British colonies; continued and rapid depletion of stocks; soaring prices as manufacturers scramble to replenish stocks and to buy forward; sharp increases in prices of finished goods; slowly increasing production as high prices earn higher exportable percentage under restriction scheme.

1926: Sharply curtailed consumption due to high prices asked for finished goods; crude rubber prices tumble, with prices of finished goods following; stocks of rubber increase; difficult period for manufacturers and producers alike; restriction scheme begins to tighten up again, setting stage for the next cycle.

It may be said at once that there are some striking points of resemblance between the rubber situation in the early part of 1924 and that of the early part of 1927. However, there are at least two important dissimilarities which may keep 1928 from bringing such a measure of distress as marked 1925.

World Stocks Bear Striking Resemblance

The most striking point of resemblance is that of world stocks at the beginning of 1924 and 1927. On January 1, 1924, stocks in the United States were 76,758 tons. In London and Liverpool there were 66,828 tons, and afloat to the consuming countries, according to Rickinson, there were 51,600 tons. This gives a total of 195,186 tons which, for comparative purposes, may be taken as the world stock since the tonnage in other ports or consuming countries was neither large nor definitely known. The world stock on January 1, 1927, computed on the same basis, was 201,000 tons, or only 6,000 tons larger.

These stocks must, however, be viewed in the light of the impending consumption. In 1924 world consumption was approximately 475,000 tons. The 195,186 tons on hand at the beginning of the year was accordingly equal to 4.9 months supply. If we accept the not uncommon estimate of 575,000 tons as the world consumption in 1927, the stocks at the beginning of this year are equal of 4.2 months supply, or somewhat less ample than was the case three years ago.

But in the early months of 1924 world stocks were rapidly decreasing whereas in 1927 they have showed a tendency to increase during January and February. During 1924 world stocks, on the basis outlined above, decreased about 48,000 tons, or from 196,000 to 148,000 tons. This decrease, coupled with the enlarged consuming demand in the next year, was the real cause of the acute situation that arose in 1925. The change that may be expected in world stocks in 1927 is accordingly the most important thing for present study. This brings us to the ticklish task of estimating production and consumption in the present year. The table in the next column is one estimate of production that appears reasonable.

Estimate of World's Rubber Production in 1927

Tons	
28,700	Actual production, Malaya and Ceylon, in January
70,700	Second quarter, Malaya and Ceylon, 70% basis
60,600	Third quarter, Malaya and Ceylon, 60% basis
60,600	Fourth quarter, Malaya and Ceylon, 60% basis
40,400	November and December, Malaya and Ceylon, 60% basis
32,000	Surplus coupons available, February 1, 1927
6,000	Islands of Singapore and Penang
299,000	Total Malaya and Ceylon
210,000	Dutch East Indies, dry
38,000	Other East, dry
547,000	Total East
40,000	Americas and Africa
587,000	Total World's Production

This estimate allows amply for a sharp decrease in the output of Malaya and Ceylon, as compared with 1926, on account of the tightening of restriction. An increase of 10,000 tons is estimated in the output of the Dutch East Indies, those islands having produced about 200,000 tons of dry rubber in 1926. "Other East" and "Americas and Africa" are counted upon to produce just about what they did in 1926.

Now as to the even more ticklish job of estimating consumption: World consumption declined sharply in 1926, due to the smaller tonnage used in the United States. Consumption in the United States in 1926 may be taken as 360,000 tons with 170,000 tons for all other countries, giving a total world's consumption of 530,000 tons. In 1927 the United States may logically be expected to show the normal growth which was deferred in 1926 by reason of the late spring and the conservative attitude of the buying public. Sales resistance, particularly against the more expensive tires containing a higher percentage of fresh rubber, should be very much less in 1927 since prices have been reduced so much. It may be reasonably estimated that the United States will use 390,000 tons of rubber in 1927. Allowing 185,000 tons for the consumption in other countries gives a total world's consumption of 575,000 tons.

Comparing this consumption estimate of 575,000 tons with the production estimate of 587,000 tons in the foregoing table, would show a surplus in 1927 of 12,000 tons. Since we began the year with world stocks of 201,000 tons, the addition of such a surplus would mean that we would start 1928 with 213,000 tons.

The world stock at the beginning of 1925 was 148,000 tons, having been reduced 48,000 tons during 1924 as noted above. Since world consumption in 1925 ran about 550,000 tons (385,000 in the U.S. and 165,000 in other countries), the stocks at the beginning of the year were equal to only 3.2 months supply. If we assume that the consumption in 1928 will be 600,000 tons (which is less than a five per cent increase over our 1927 estimate), then stocks of 213,000 tons would be equivalent to 4.25 months supply. In other words, if the estimates of 1927 production and consumption prove to be reasonably accurate, we will enter 1928 in a considerably better stock position than we entered 1925.

This improved stock position may surely be expected to postpone somewhat the stringency and soaring prices such as were seen in 1925. The question really is how long such postponement can be expected to last, and whether severe stringency can be averted altogether. Even before the end of 1927 the surplus coupons in Malaya and Ceylon will have been used up so that whatever percentage of restriction is being imposed will be fully effective. Current production will accordingly fail to equal current demand with the result that the rather ample stock at the beginning of 1928 will be cut down rapidly. The more rapid the decrease in stocks, the more rapid the price increase. The restriction scheme was

modified last November with the professed idea of making it more elastic and it should be worth while to see how likely it is to prevent widely fluctuating prices by increasing the supply quickly after prices become firmer.

It has been assumed in the foregoing production table that the exportable percentage will slide on down to 60 per cent on May 1 of this year. That looks like a perfectly safe assumption although London is reported as surprised that American buyers would permit such a further cut to take place. Up until February 23 the London spot price had averaged only 18.937 pence (equivalent to 38¼ cents) whereas an average of 21 pence, or 42.4 cents, throughout the quarter is necessary to prevent the cut. During the remainder of the quarter an average of 21.764 pence (43.96 cents) would be necessary to make up the demanded average of 21 pence for the entire quarter, but there has been no evidence of any intention to support such a price.

After the exportable percentage has once declined to 60 per cent, the price must average 21 pence for three quarters, or 24 pence (48½ cents) for one quarter to get it increased to 70 per cent again. Every ten per cent greater release must be earned in the same way unless the price in one quarter races up to average 36 pence (72¾ cents) in which case the exportable percentage will go to 100 per cent immediately.

Thus it will be seen that if an average price of slightly more than 42 cents were maintained after May 1, which is not at all assured with stocks in sight as large as they are, it would be February 1, 1928, before we would again have the exportable percentage of 70 per cent which we now enjoy. The 70 per cent could be restored in one quarter only if the price maintained an average of 48½ cents which is hardly conceivable in the present year unless consumption exceeds the producers' most optimistic estimates.

After February 1, 1928, the exportable percentage could be pushed on up from 70 per cent to 100 per cent in two quarters if a price of 48½ cents were maintained, or in one quarter if a price of 72¾ cents were maintained. But if the price after February 1 did not reach 48½ cents, another nine months would have to pass before the exportable percentage reached 80 per cent. In the meantime stocks would be so reduced that a serious situation would be inevitable. The flexibility to prevent such an eventuality is in the restriction scheme—at a price, but it must be remembered that such flexibility was not available at any price in 1925.

The main difference then between the present cycle—1927, 1928 and 1929—as contrasted with the past three years is that stocks are still rising instead of decreasing, that we will enter 1928 in a much better stock position than we entered 1925, and that the pinch of an artificial shortage is apt to be deferred and perhaps considerably softened by the revisions which were made last year in the restriction scheme.

Rubber Lumber for Airplanes and Speed Boats

Goodrich Engineers Claim Many Advantages for Aeroboard

THE B. F. Goodrich Company has announced that its new product known as Aeroboard or rubber lumber has successfully passed all the tests devised by the company's engineers and will soon be in production on a commercial basis. Quite a complete description of this material appeared in THE RUBBER AGE of February 10, 1927, in connection with its use in the hulls of motor boats exhibited at the New York power boat show.

In all its tests, Goodrich engineers say, Aeroboard has shown results surpassing wood in speed boats, pontoons and airplane fuselages. The new material can be worked practically the same as wood and in many cases can be worked into difficult rounded or curved shapes much easier than wood. It can be attached to frames with nails or screws without danger of splitting.

Due to the softening characteristic of rubber when heated, Aeroboard can be molded to difficult shapes when heated to the temperature of boiling water and retains such shape when it is cooled without destruction of any of the original tensile strength of the board.

Rubber has a natural flexibility and the retention of much of this quality in Aeroboard, Goodrich engineers claim, will prove of incalculable benefit in fuselage construction. The stresses set up in an airplane fuselage when landing are more likely to be absorbed and their destructive strains checked or eliminated when the body is of rubber lumber.

In the report of the Goodrich engineers is found evidence of the new material's strength. Tests conducted showed that the rubber lumber withstood strains of great force. In practically all cases the resistance to breakage force was equal to wood of the same thickness and under some conditions the rubber lumber showed itself to be from two to five times stronger than wood.

It possesses a very low moisture absorption quality which naturally recommends the material for light boat construction. Laboratory experiments established the fact that the new material would absorb less than 1% of moisture when immersed in water maintained at a temperature of 70 degrees F. for seven weeks.

Rubber naturally resists the corrosive action of sea water, barnacle growths do not attach themselves to it as easily as to wood, and for all practical purposes it has a longer life when exposed to such elements than wood. This latter fact is established by the nature of the material and the manner in which it is vulcanized.

The new material is not being produced in commercial quantities at the present time, but the Goodrich Company is planning on such production at an early date.

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Selling Tires on Easy Payments

The Miller Rubber Company Offers its Dealers Some Advice On the Subject After Studying it Carefully from all Angles

SELLING tires on installments, or on the easy payment plan as it is often expressed, is not altogether new although there are thousands of dealers who have never tried it. The plan has been used in various sections of the country with varying success for several years, but only recently has this method of promoting retail tire business gained the dignity which is associated with the purchase of an automobile in the same way. Many executives in the tire industry are still opposed to the plan but others are according it recognition as sound business if properly controlled.

For instance, the Miller Rubber Company, Akron, Ohio, not only takes cognizance of the plan and encourages its dealers to consider using it, but the company has also gone to the labor of studying it from all angles and digesting its findings in a brochure for the benefit of those of its dealers who are so situated as to be able to increase their sales materially by applying deferred payments.

The big advantage of the easy pay system, the Miller company points out, lies in the fact that the customer invariably buys a better grade of merchandise since the payments are scarcely felt. Then if the plan is successfully applied the volume of business is increased to a much greater degree than the overhead. As a result profits increase in greater proportion than the capital required.

But not every dealer will find it worth his while to sell on the installment plan. He must be sure that it will increase his business with greater profits, he must determine that the car owners in this territory will welcome the plan and he must arrange for outside help in financing it in case he cannot do so himself. The dealer will usually have no trouble in getting his bank or some financing company to carry the extra burden. If the dealer can finance his own sales, he will be much better situated as he should make an extra ten per cent on most deferred payment sales. If a bank or finance company carries the load, the dealer will have to pass on to it the extra ten per cent which he will charge his customer. The dealer will need some simple forms to help him take care of this new class of business.

Miller suggests two ways of handling the financing charge. One is for the dealer to name his regular prices and very frankly announce the extra charge he is making for the financing. The other is to name higher than regular prices, concealing the financing charge in the price. Dealers are said to be working both plans satisfactorily.

The dealer's risk is not as great as might be supposed, the Miller company says in its booklet. He either sells goods on the honor of the customer or he takes good security, always requiring about one-third in cash. He has investigated the customer, has bound him up in legal forms, and his loss, according to the experience of other dealers, will be a fraction so small as to be almost negligible.

The dealer may sell tires on easy payments just as another dealer would sell merchandise on time, requiring a statement from the customer and selling the goods without taking a note, mortgage or salary assignment as security. In case of difficulty, the only redress is the course usually taken in the dealer's state in the case of unpaid bills which require legal action for their collection. If the dealer chooses to have his customer execute a chattel mortgage, rental agreement, lease or other instrument, he must be guided by the forms acceptable in his state. In its booklet the Miller Company reprints the forms that are approved in most of the states but urges that in every case the dealer be advised by his local attorney before proceeding.

It is recognized, however, that the chattel mortgage, rental agreement or whatever instrument is used, is more effective from a psychological standpoint than in a legal way. Most people dread legal proceedings and publicity on account of alleged dishonesty. Should this psychological factor not be powerful enough to cause payment of the amount due the dealer, small losses may be incurred since the cost of legal

[Concluded on Page 556.]

DEALER'S NAME
Miller Cords

Address _____ Phone No. _____

In Account With

Name _____

Address _____

Balance due:

Contract No. _____ Weekly Payment _____

Date Due	Amount	Date Paid	Rec'd by

WATCH YOUR CREDIT

To the left is shown the suggested form of a card to be given the customer for recording his payments as they are made. Each payment is formally receipted for in the space left for that purpose.

The form below is suggested for use in notifying customers that a payment is overdue. An attempt has been made to make the statement firm but nevertheless courteous.

NOTICE OF PAYMENT PAST DUE

The payment on your Tire Note was due.....

Installment Due $.....

Collector's Call $.....

Make Remittance For $.....

This payment has evidently been overlooked.

Please call at your earliest convenience.

TIRES AND SERVICE THAT WARRANT YOUR CONFIDENCE

DEALER'S NAME
Address and Phone No.

AUTOMOBILE UPON WHICH TIRES AND TUBES ARE INSTALLED

Owned by .....

Employed .....

Make of Car .....

Engine No. .....

Is Automobile mortgaged .....

Where recorded .....

Unpaid balance on mortgage $.....

The above statements are made for the purpose of obtaining credit.

Signed .....

Address .....

.....

The form shown above is a simple "acquaintance" blank to be filled out by the customer before his order is finally accepted. A much more elaborate form may be used if desired.

The London Letter

The GENTLEMAN FROM MINCING LANE will report current opinion in London's famous rubber market in every issue of THE RUBBER AGE

This Week the Gentleman Says "Just Wait and See."

LONDON, February 26, 1927.

RAW RUBBER reservoirs continue to fill up to higher and higher levels in London and New York. In spite of cutting the stream of export coupons in Malaya and Ceylon down to 80 per cent on November 1 and on down to 70 per cent on February 1, the torrent still flows merrily on. Mincing Lane watches with typical "wait and see" stoicism. "Wait and see what happens after the indicator has turned down to 60 per cent for the May-July quarter" is the confident prophecy.

The folks here in the Lane are just as certain as they can be that the Americans are either deluded by the sight of the 100 per cent supply which still flows out of the East (thanks to the held-over coupons) or that they are statistic-bound, figuring too closely and too low on their needs for the rest of 1927.

Anyway, as I wrote you a fortnight ago, the whole question depends on who is right as regards 1927 American consumption. Thus far, British estimators have consistently refused to accept American prophecies, and they are betting heavy on 21 pence, 24 pence or even 30 pence rubber before the end of the year if the exportable percentage is allowed to sink to 60 per cent for the May-July quarter.

There are five "bull" features which look good to them in support of their position. First, there are the American figures of actual tyre production and deliveries for December and all of 1926. They also look with satisfaction on the American consumption of rubber in January and the unprecedented quantity which arrived in New York in December.

Second, the potential demand during the coming automobile season looks good to crude rubber interests. Sufficient time has not elapsed, they think, for true judgment to be passed on tyres having a large percentage of reclaimed rubber, and they remember that nearly half of the tyres used in the United States are of second and third quality, having a high percentage of reclaimed rubber. American estimates of their crude rubber needs are based on the expectation that these lower priced tyres will each run on an average of 7,500 miles or more. What if they run only 6,000 miles?

THEN again, the competition among American tyre makers has carried prices to a very low level. Another cut of 7½ per cent in prices has just come over the wires to London. I understand that these new prices apply on tyres supplied to automobile manufacturers but London would not be surprised to hear that they were extended to the motorists also. The low prices already prevailing, if they are steadily maintained, should be enough, in London's opinion, to wean car owners away from the conservative attitude they held last year, thereby stimulating retail sales very much and putting on the backs of those hundreds of thousands of cars the spare tyres that were denied them last year. All of this is based of course on the confident expectation that there will be no interruption in America's present prosperity.

The third "bull" point is the expectation of the rubber growers that American manufacturers will welcome a slowly rising market in order to recoup the losses that they incurred on the falling market of 1926. They perhaps realize now that a concerted effort to depress the market for crude rubber also depresses the market for finished rubber goods.

In the fourth place, it is believed that the American interests associated with the so-called buyers' pool in New York have purchased substantial quantities of rubber in London and New York. To the extent that this is true, this would naturally be another bullish factor and further evidence of the uniformity of interest of tyre manufacturers with rubber producers in support of raw rubber prices.

FIFTH, and lastly, it is recognized that this same pool is not an organization through which big American users of rubber buy all their rubber. Indeed, they are still operating in the same way as heretofore, each big company buying on its own. Hence London quite confidently expects that a sharp upturn in the market would bring all the big buyers crowding into the market on the same day or in the same week, just as they have in times past. Such a situation would quite naturally raise the price rapidly. The lowest price at which London will sell future rubber is 21 pence; therefore any concerted buying operations of this sort would not have to raise the price much from the present levels of 18 or 19 pence to conform to the producers' present ideas, although those ideas may be revised.

It is not my intention here to review the American market, but I feel that a typical London view, so far as I am able to gauge it, may be interesting to you. At the present time the whole rubber interest in London centers around what American demand is likely to do in the next few months.

On the production side there are only two matters of interest which have developed further in the last fortnight—the removal of time limitations on the use of Ceylon unused coupons, and the Rubber Growers' Association Fund for the relief of the inhabitants of Malaya made destitute by recent storms. Both of these items are of slight interest since the reserve of unused coupons will automatically be used up shortly since the exportable percentage has been at 80 per cent for one quarter and now stands at 70 per cent.

Hence all is clear on the production side and we can do nothing but wait and see where the actual consumption figures fall—probably somewhere between the high British and the low American estimates.

Yours faithfully,

THE GENTLEMAN FROM MINCING LANE.

Rubber Bearings for Turbines

Rubber Shows Ability to Stand up Indefinitely Under Conditions Where Lignum Vitae Gives Limited Service

FOLLOWING the lead of the power boat manufacturers, the hydraulic turbine builder has adopted rubber guide bearings as the most recent improvement in turbine design. This use of rubber promises to be both satisfactory and noteworthy since after two years use the bearings show no signs of wear whatever. A full report on their service has appeared in the journal, "Water Resources Review," and the author, J. B. Cutler, assistant hydraulic engineer of the I. P. Morris Corporation of Philadelphia, has kindly supplied THE RUBBER AGE some additional data to cover the subject up-to-date.

Rubber bearings, like lignum vitae bearings, are water lubricated, and the lubrication water is usually taken from the turbine casing or flume. Lignum vitae bearings are usually satisfactory where the lubrication water is free from sand or silt. Under the action of sand or silt, however, lignum vitae will wear away in a comparatively short time, making necessary the removal and replacement of the bearing shells at frequent intervals. Such procedure is, of course, objectionable as considerable time and expense is involved.

The life of a rubber bearing under the action of sand or silt laden water is greatly in excess of the life of a lignum vitae bearing, and based on actual performance to date, appears to be indefinite. Owing to the resilient characteristic of rubber, practically no wear is expected from sand or grit particles either in the rubber lining or on the shaft journal. By the rotative action of the shaft a stream of water is circulated through the helical groove provided in the rubber liner and any sand or grit on the bearing surface will sink into the highly resilient rubber and be rolled into the helical groove to be carried away by the flow of water.

One of the first rubber guide bearings for use with a hydraulic turbine was installed in November, 1924, in a 1000-horsepower, vertical shaft machine operating in the plant of the Pennsylvania Water and Power Company, located on the Susquehanna River. The twelve units now operating in this station were all originally equipped with bearings of the lignum vitae type. On account of the large quantity of silt carried in the Susquehanna River, the life of the lignum vitae bearings averaged only thirteen or fifteen months. Owing to the expense incurred and the time required for the frequent replacements, the Power Company engineers concluded that an experiment with a rubber lined bearing would be justified. Consequently the bearing above referred to was installed. The shaft for this unit was 9 inches in diameter and the speed 240 R.P.M.

On account of the excellent service rendered by this first rubber bearing under the severe silt conditions, the Power Company engineers decided to install a second rubber bearing, on one of their larger 16,500 horsepower machines.

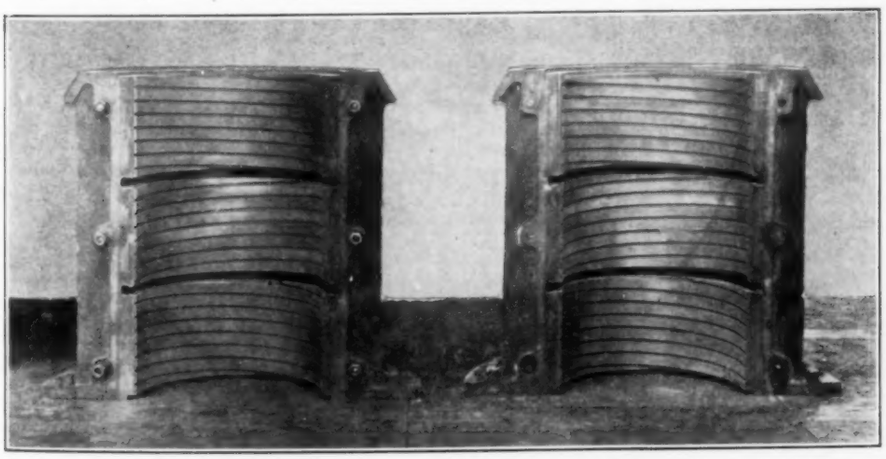
At the present time both of these bearings are operating with utmost satisfaction. The small bearing has been in service for approximately two years and the large bearing for about one year. No indications whatever of wear have been noted in either one and the resilience of the rubber is absolutely unimpaired. Engineers who are familiar with bearings of this type have concluded that although the initial expense is greater, the installation of rubber bearings is more than justified by their exceedingly long life.

The reasons explanatory of this long life of rubber as compared with lignum vitae for this service may be summed up as follows:

1. Greater resilience which prevents cutting or scoring from sand or grit particles.
2. Greater durability of material.
3. Wet, dark atmosphere under which the bearings operate is ideal for preservation of rubber.

While longer life is the great advantage, rubber bearings are superior to other types in that they will not seize as quickly after cessation of flow of the lubricating fluid and they will, to a certain extent, dampen any vibration that may exist in the shaft. In regard to the possibility of lateral movement of the shaft, a shop test on the 9-inch bearing for the 1,000 horsepower, Penna. Co. unit indicated that with the bearing horizontal and under a vertical load of 1,000 pounds, the rubber deflected only one-sixty-fourth of an inch. The length of this bearing was 30 inches.

To insure complete lubrication throughout the entire length of these bearings, annular chambers are provided in the bearing liner at intermediate locations for the introduction and discharge of the lubricating water at these points as well as at the upper and lower end. In the illustration of a 24-inch bearing shown herewith, it will be seen that two such annular chambers were provided, dividing the bearing surface into three sections of equal area. Spiral lubrication grooves in adjacent areas were cut in opposite directions. With the shaft rotating in a clockwise direction when viewed from above, the flow of lubricating water in the upper section will be downward, in the intermediate section upward and in the lower section downward. In the upper section the water is introduced at the upper end and discharged through the upper annular space. In the intermediate section the water is admitted through the lower annular space and discharged through the upper annular space. In the lower section the water enters through the lower annular space and discharges at the bottom of the bearing. The annular spaces above



View of the 24-inch rubber bearing installed in a 16,500 horsepower turbine on the Susquehanna River. The dual annular chambers are clearly seen. Their purpose is explained in the text above.

referred to are directly connected to larger chambers provided in the bearing shell but not visible in the illustration. These larger chambers are connected to the source of supply and to the draft tube for the discharge water.

In comparing the relative merits of rubber bearings with bearings of the oil lubricated type, rubber bearings are more advantageous where the tailwater at the power plant will rise to elevations above the bearing, and particularly so when the river water contains an appreciable amount of silt. Under such conditions, it would be necessary with oil lubricated bearings to use an ejector or a pump in continuous operation to prevent the water leaking through the bearing seal and mixing with the oil. For the satisfactory operation of oil bearings, lubricating pumps are required for continuous operation, and in addition automatic emergency lubricating pumps are usually installed for immediate use in the event of failure of the main service pump. No automatic equipment of this nature is required for water lubricated rubber bearings, and consequently these bearings will require less attention and less difficulty will be experienced with the lubricating systems.

Prior to the use of rubber bearings with hydraulic turbine machinery they have been quite extensively used in marine service and for pumps. In this service their durability and long life under severe sand action has been conclusively proven. The first bearing of this type for marine service was installed on the Pacific coast in July, 1922, for operation with a tug boat propeller shaft 5¾ inches in diameter. Since that time many rubber bearings have been used for propeller shafts of various sizes.

It might be of interest to note that rubber bearings installed with dredges and sand pumps have proven beyond question their ability to operate continuously for weeks at a time under the action of large quantities of sharp seashore sand without any indication of wear whatsoever.

Engineers are becoming increasingly interested in the service rendered by rubber lined guide bearings for hydraulic turbines and on a basis of the interest displayed and results obtained, it seems more than probable that these bearings will eventually be recognized as standard where silt or sand laden water is used.

Much Rubber Used in Marmon

Rubber is used in the specially designed hydraulic spring suspension in the little Marmon Eight and rubber knuckles are used in place of shackles on the springs to guard against so-called spring periods. Sponge rubber arm rests, covered with upholstery, were adopted in the sedan models to give rear seat passengers an extra degree of comfort.

The Economy of Cushion Tires

Although the initial cost of cushion tires is more than twice that of solid tires and not very different from that of pneumatic truck tires, the tire-mile cost of the cushion tire is less than either of the others, according to A. L. Schoff, assistant vice-president of the Overman Cushion Tire Company, who spoke recently before the Society of Automotive Engineers. Records taken from large fleets of cushion-tired trucks, Mr. Schoff said, show that mileages of 50,000 to 60,000 are frequent and that the average of cushion tires is 30,000 miles, for solid tires 14,000 and for pneumatic truck tires 12,000.

Additional economy of cushion tires is said to come from eliminating the expense relative to repairing and servicing pneumatic tires and securing better speed and tractive qualities than solid tires.

Failures of cushion tires are usually the result of misalignment of wheels, overloading, overspeeding, improper selection of size and incorrect application. Five common types of failure are: Rapid tread wear on front wheels, uneven tread wear, flat spots, burn-outs and base separation. All of these, Mr. Schoff contends, could be largely nullified by the truck manufacturer and operator working together.

Only two companies were making and marketing cushion tires for motor vehicles in this country in 1920 and their sales volume was comparatively small, but now at least nine prominent tire companies are marketing them.

Selling Tires on Easy Payments

(*Continued from Page* 553.)

proceedings makes it uneconomical to force payments through the courts.

The Miller company reports that dealers have found it easy to make easy payment sales and even to get the legal forms signed, if the dealer handles the matter properly. The forms need not be mentioned until the sale is concluded, and they need not be treated as highly important when finally produced. The financing fee of 10 per cent should be added to the weekly payments since it looks insignificant when spread over several weeks. The sale of $30 worth of tires should mean a down payment of $10 and ten weekly payments of $2.30 each. If the customer objects to the extra charge, it may be pointed out that credit costs the dealer money and he is obliged to pass on the extra charge to those customers who make the greater credit necessary. The customer may also be advised that the financing charge will be deducted if the entire bill is paid within thirty days, but this cannot be done where a financing company is handling the matter for the dealer.

In some cases, the booklet states, dealers give customers fourteen weeks time but the payments should never be less than $2.00 per week.

The first form which the dealer will need when he starts selling on the easy payment plan is an "acquaintance" blank on which the customer offers information concerning himself as a risk. Miller submits two of these, one which calls for detailed information and one that is much simpler. The latter form is reproduced in connection with this article. Judging the customer's acceptability is the most difficult part of the easy payment transaction and requires the greatest care.

Having made the sale, the dealer gives the customer a card showing the dates on which the various payments are due, with blanks for the receipt on the day they are paid. A third form is for use in connection with slow pay customers. Prompt collections should be the rule and collection notices should be insistent. If a finance company is employed, the dealer does not need to worry about collections unless they reach a point where he must make good his endorsement to the finance company.

If the easy payment plan does not increase the dealer's volume of business, Miller points out, it is worthless and the dealer had better not accept it. In using it, however, business will have to be stimulated in the regular way. It is almost an absolute necessity that the dealer advertise with some regularity, preferably using small space in newspapers, and direct mail. In the advertising such terms as "installment selling" should be avoided. The quality of the goods and the ease of paying for them under the dealer's method of doing business should be emphasized. Security should not be mentioned. In several suggested advertisements the Miller company stresses the economy of buying the best tires which may be had on a plan which makes the payments easy and scarcely felt.

Form letters suggesting the purchase of tires on the easy payment plan should not be sent out broadcast by the dealers. They should never go to car owners able to pay cash right along, but may be sent with benefit to a selected list of prospects to whom such credit would probably be an inducement.

The dealer must remember that the plan of selling tires on easy payments is as dignified as any other installment scheme, and as profitable. In addition there is less risk attached to it because the balance due is small when compared with that due on a radio set, an automobile or the numerous other utilities usually sold on deferred payments.

Manhattan Tests Fabrics

The Manhattan Rubber Mfg. Company, Passaic, N. J. has completed what is said to be one of the largest testing laboratories in the country. Equipment includes various devices for testing cotton fabrics. Technicians go to great trouble to check up the tensile strength, quality and suitability of cotton and all other materials which go into the manufacture of Manhattan products.

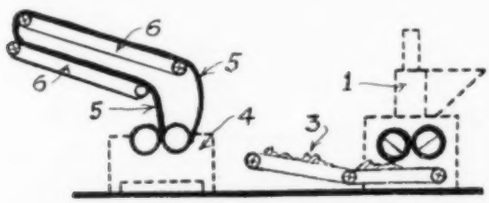
Rubber Chemistry and Chemicals

Rubber Technology in European Factories

A British Process of Mixing in Sulphur Separately— Plan of the Electrically Heated Vulcanizing Tunnel

THE PROPERTIES of finished vulcanized rubber are dependent to a large degree on the manner in which the various rubber ingredients are mixed together. Many interesting improvements have been made along these lines and one that deserves special notice is patented in British Patent No. 259,028. In this process the sulphur is not added to the rubber until all the other ingredients have first been mixed in. The rubber which is completely compounded except for the sulphur is sheeted and thereafter cooled on a conveyor which carries it to the mill in which the sulphur is finally incorporated with it.

One method of working this process is to have the mixture of rubber and other ingredients pass from an internal mixer on to a conveyor whence it is fed directly or by hand to a sheeting mill; from the sheeting mill it passes to the cooling conveyor which transfers it to the sulphur mixing rolls. The



accompanying sketch illustrates the method of operating this process. This consists in hand-feeding the mixture (which has been mixed in the mixer 1) from the conveyor 3 to the sheeting mill 4. Having passed through the sheeting mill, the sheet 5 makes a round trip on the cooling conveyor 6 back to the mill 4, in which the sulphur is then mixed in. A combined mixing and sheeting mill may replace the mixer 1.

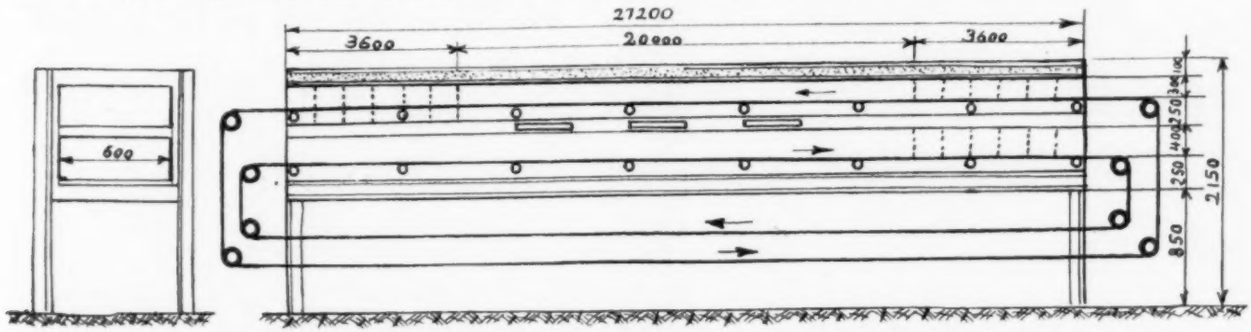
It is evident that this process possesses considerable advantage in cases where accelerators and ultra-accelerators are employed. As is known it sometimes happens that vulcanization takes place prematurely in the mixing rolls, but this could not of course take place if the sulphur were not present in the mass.

A new form of vulcanizing tunnel, which is electrically heated, is described in *Gummi Zeitung*, 1926, page 248, and is shown in the sketch reproduced below. The tunnel is provided with a preliminary heating zone at one end and a cooling zone at the opposite end. The tunnel is made in two sections, one above the other, in order to minimize the loss of heat due to radiation. The resistance wires are built into the horizontal walls. A conveyor moves through the upper and lower tunnel sections. The speed of each conveyor can be regulated separately and varies between four to twenty inches per minute. The heating elements in the tunnel, three in number, are controlled externally by means of automatic controllers so that the temperature is maintained constant at all times. The ends of the tunnels are insulated in a suitable manner and entrance of air is avoided. The insulating devices consist of a series of hangings, fastened to the roof of the tunnel and made from nickel wire. The tunnel is made with a double wall of lead-coated iron plate and the insulation consists of layers of cork.

Many investigations have been made on the effect of the size of the particle on the properties of the finished rubber product. This is a matter of prime importance and the rubber man has not given it proper attention in the past. We were attracted by a series of articles on this subject in The Journal of the Oil and Color Chemists Association, some of which have been discussed on this page in the past. Another of these articles, which appeared on pages 211 to 214 of that journal in 1926, volume 9, was concerned with the effect of the particle size in rubbers which were subjected to repeated stress. This is of course directly applicable to rubber tires and other rubber merchandise used under similar conditions.

Mixtures were made containing 95 parts of rubber, and five parts of sulphur with 20 volumes of various fillers, such as barytes, clay, ordinary and colloidal zinc oxide, magnesium carbonate, lampblack and gas black. It was found that the tensile strength and the resistance to extension was greater the smaller the particle size. Furthermore, the hysteresis is more marked the smaller the particles and so is the sclerescope hardness. Volume increase under strain is, however, only approximately related to particle size, the degree of adhesion of the particle to the rubber being also probably a less serious factor.

Various methods have been devised for determining the plasticity of raw rubber to see that it is just right for mixing purposes. These are all described in an article which appeared in *Kautschuk*, 1926, pages 207-9 and the results that were obtained by their use are set forth. A study of the results shows that a variety of conclusions can be drawn from them. There does not yet appear to be any standard method for making this determination.



The Electrically-Heated Vulcanizing Tunnel. The Measurements are in Millimeters.

Crude Rubber Touches Forty-Cent Level

Bullish Reports and Manufacturing Demand Help Market to Throw Off Lethargy and Quotations Gain in All Positions

NEW YORK, March 3, 1927—Two weeks ago the rubber market threw off the lethargy which had held it for some weeks and turned decidedly bullish on figures showing a decided slash in Malayan exports for the first half of the year. Additional bullish reports included the Colonial Secretary's statement before Parliament that no change in restriction was contemplated, a rumor of an agreement between Dunlop and Michelin in London to advance prices 30 per cent, the gradual approach of Akron factories to peak production, and a strike in Colombo.

It is probable, however that buying interest played the greatest role in firming up prices, with the greatest demand for March, May and July deliveries.

Much speculative activity was evident on the Exchange almost every day, but the outside market was not always as active. In many cases realizing sales cut down gains. For instance, on the 25th May sold up to 40.10, but profit taking later caused it to fall back to 39.80. Large premiums were paid for switching from nearby positions to summer months. Changes from March to July brought a premium of 200 points and from March to May 110 points, as the future positions were held very firmly.

Speculation regarding coupons continued. It was reported from the East that licenses were being used up very rapidly and that the tonnage represented by them will be cut to practically nothing by the end of April. Reports from London stated that there was a great deal of misunderstanding in all markets regarding the removal of time limits on Ceylon coupons. Ceylon claimed that by exporting rubber to the free ports of Penang and Singapore, Malayan estates could store their output if it was unsold or being held for a better price. In Ceylon, however, the case was entirely different, for until the rubber was actually shipped from Colombo the export coupons were still unexercised and were thus liable to cancellation under the time limit fixed.

True to prediction, demand for crude rubber from rubber factories appeared at a time when exports from the East began falling off. London stressed the importance of reduced shipments from Malaya. Severe floods in January slowed up the movement from plantations to ports to a much greater extent than had been anticipated. As a result plantation work suffered from cessation of tapping due to the use of labor for repairing roadways.

A substantial increase in London stock on the 28th had little influence on the market. A total stock of 58,659 tons did not turn the London market, and in New York prices made additional small gains. A feature of trading on the Exchange was the rapid recovery after realizing sales. A further slight gain on the 1st brought rubber up to the 40-cent level, led by May which sold well on steady cables and fairly good manufacturing demand. Buying was stimulated by the likelihood of another cut in exports to 60 per cent on May 1 if the London average price is not 21 pence for the current quarter.

MARCH 3 OPEN MARKET PRICES

Plantations—			
Ribbed Smoked Sheets			
Spot	.40	@	.40¼
March	.40	@	.40¼
April	.40¼	@	.40½
April/June	.41	@	.41¼
July/September	.42	@	.42½
October/December	.43	@	.43¼
First Latex, crepe spot	.40½	@	.40¾
Amber Crepe, No. 2, spot	—	@	.37¾
" " No. 3	.36¾	@	.37
" " No. 4	—	@	.37
Brown Crepe, Rolled	.33½	@	.33¾
" " Clean, thin	.36¾	@	.37¼
" " Specky	—	@	.36¼
Liquid Latex, per gal.	1.50	@	1.75
Pontianac—			
Bangermassin	—	@	.17½
Palembang	Nominal		
Prime Pressed	—	@	.27¾
Sarawak	—	@	.17½
Paras—			
Up-river Fine	.33	@	.33½
" Medium	.26	@	.26½
" Coarse	.25	@	.25 .2
Acre Bolivian, fine	.32½	@	.33
Tapajos, fine	.28½	@	.29½
Cut Beni Bolivian, fine	Nominal		
Caucho Ball—			
Upper, shipment	.25½	@	.26
Centrals—			
Corinto, scrap	.23¼	@	.24
Esmeraldo, sausage	.22½	@	.23
Guayule, w and d	.30½	@	.31½
Africans—			
Benguela, No. 2	Nominal		
Congo, upper, black	Nominal		
" " red	Nominal		
Balata—			
Block, Columbia	.39	@	.40
" Cuidad	.37½	@	.38
Surinam, sheet	.73	@	.75
Gutta Percha—			
Sick	—	@	.30½
Red Macassar	—	@	3.00

LONDON MARKET

Standard Ribbed Smoked Sheets—*Buyers*	
Spot	19¾d
March	19¾
April/June	20¼
July/Sept.	21¼
Oct./Dec.	21¼

SINGAPORE MARKET

Standard Ribbed Smoked Sheets—*Sellers*	
Spot	19¼d
March	19½
April/June	19⅞
July/Sept.	20½

RECLAIMED RUBBER

NEW YORK, March 3, 1927—Reclaimers report a good business being done under old contracts and a moderate volume of new orders. Bidding for large inquiries was keen, and in some cases quoted price levels were shaded. The strength of crude rubber is expected to bring consumers into the market for future requirements. A number of price changes have been made in the last two weeks:

High Tensile Black				
Super-Reclaim No. 1	lb.	.19	@	.20
" " No. 2	lb.	.16	@	.17
Shoe				
Unwashed	lb.	.08¾	@	.09
Washed	lb.	.11¾	@	.12
Tube				
No. 1 (Floating)	lb.	.19½	@	.20
No. 2 (Compounded)	lb.	.15	@	.16
High Tensile Red		.15½	@	.16
Tires				
Black, washed	lb.	.10¾	@	.11
Black, washed	lb.	.10¾	@	.11
Black selected tires	lb.	.10¼	@	.11
Dark Grey	lb.	.12	@	.13
Light Gray	lb.	.14	@	.14½
White	lb.	.17	@	.17½
Truck, Heavy Gravity	lb.	.09	@	.09½
" Light Gravity	lb.	.10	@	.10¼
Miscellaneous				
Mechanical Blends	lb.	.08	@	.09
Red	lb.	.15½	@	.16

SCRAP RUBBER

NEW YORK, March 3, 1927—The dullness that has marked the scrap rubber market for the last month continues, with reclaimers confining their purchases to immediate needs and moderate sized withdrawals on contracts. Slow moving accumulations of scrap have tended to hold prices against further declines. Boots and Shoes and Inner Tubes Compounded have eased off a little during the past two weeks.

[Prices to Consumer]

Auto tire peelings	ton	38.00	@	40.00
Standard White auto	ton	57.50	@	60.00
Mixed auto	ton	26.50	@	27.50
Bicycle tires	ton	25.00	@	26.00
Clean solid truck tires	ton	36.00	@	37.00
Boots and shoes		.02⅛	@	.02¼
Arctics, untrimmed		.01¼	@	.01⅜
Arctics, trimmed		.01⅝	@	.01¾
Inner tubes, No. 1		.09¾	@	.09½
Inner tubes, No. 2, compounded		.07¼	@	.07⅜
Air Brake Hose	ton	37.50	@	39.00
Rubber hose	ton	20.00	@	21.00

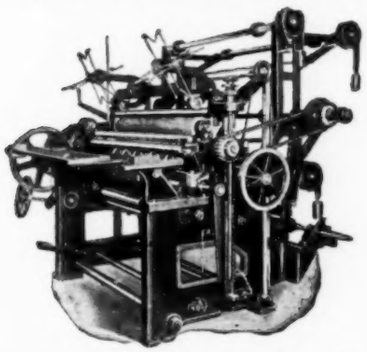
Closing Prices on Rubber Exchange of New York, Inc.

FEB. 18 to MARCH 3

	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	SALES*
Feb. 18	38.20	38.50	38.80	39.60	39.90	40.20	40.40	40.60	41.00	41.30	41.70	42.10	——	208
19	38.30	38.60	38.90	39.60	40.00	40.40	40.80	41.00	41.50	41.80	42.10	42.40	——	124
21	38.00	38.40	38.80	39.50	39.80	40.20	40.60	40.90	41.30	41.80	42.10	42.40	——	99
22	Exchange closed in observance of Washington's Birthday.													
23	——	38.70	39.20	39.80	40.20	40.60	41.00	41.00	41.60	42.00	42.40	42.80	——	142
24	——	38.50	39.00	39.70	40.10	40.50	40.90	41.30	41.60	42.00	42.40	42.80	——	291
25	——	38.70	39.00	39.80	40.20	40.70	41.10	41.20	41.60	42.00	42.40	42.80	——	235
26	——	39.00	39.60	40.10	40.50	40.90	41.30	41.50	41.90	42.40	42.70	43.00	——	107
28	——	39.30	39.60	40.40	40.70	41.30	41.50	41.70	42.10	42.40	42.70	43.10	——	250
March 1	——	39.30	39.80	40.40	——	41.20	41.60	41.80	42.10	42.40	42.70	43.10	43.50	221
2	——	39.20	39.70	40.30	——	41.20	41.60	41.80	42.10	42.40	42.70	43.10	43.50	273
3	——	39.90	40.40	40.90	41.40	41.80	42.10	42.30	42.50	42.70	42.90	43.20	43.50	351

(*) In lots of 2½ tons each; totals are for old and new contracts.
(Prices are for new contracts)

CAMACHINE 6-C



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Office and Works: BUTLER, N. J.

MANUFACTURERS OF

RECLAIMED RUBBER

WITH A REPUTATION FOR

UNIFORMITY -- RELIABILITY -- CLEANLINESS

Steady Tone in Rubber Chemical Market

Leading Factors Report Continuance of Good Demand and Predict an Excellent Business for Next Quarter

NEW YORK, March 4, 1927—The reduction in the prices of disubstituted guanidines reported in the February 25th issue did not have even the slight unsettling effect on the market for rubber chemicals that some feared. Fluctuations reported in the last two weeks were confined to some of the other accelerators and a number of items of lesser importance. The reduction in the price of guanidines brought about no unusual activity in these accelerators, despite the fact that it was possible on large quantities to obtain concessions. Leading factors appear to be fairly well satisfied with the volume of current business and predict that it will continue at much the same rate through the remainder of this month and throughout the next quarter. With one or two, the short month of February was equally as good as January, and even better business is expected for March. A firm undertone is noticed in the market, especially in carbon black.

ACCELERATORS

Organic

A-7	lb.	.70 @	—
A-40	lb.	.70 @	—
A-19	lb.	.75 @	—
A-11	lb.	.75 @	—
Aldehyde ammonia, crystals	lb.	.82 @	—
Aniline oil, drums	lb.	.17 @	.17½
"BB"	lb.	1.05 @	1.07
Captax	lb.	1.20 @	1.50
Crylene	lb.	.70 @	—
paste	lb.	.50 @	—
Di-Ortho-Tolylguanidine	lb.	.85 @	.90
Diphenylguanidine	lb.	.68 @	.72
Ethylidene aniline	lb.	.65 @	—
Excellerex	lb.	.35 @	.40
Formaldehyde Aniline	lb.	.42 @	—
Grasselerator 102	lb.	.80 @	.82½
Grasselerator 552	lb.	4.80 @	5.00
Grasselerator 808	lb.	1.15 @	1.35
Heptene	lb.	.55 @	—
Hexamethylene-tetramine	lb.	.82½ @	—
Monex	lb.	3.25 @	—
Paraphenylenediamine	lb.	1.25 @	1.30
Piperidine-Piperidyldithio-Carbamate	lb.	4.80 @	5.00
R & H 50	lb.	— @	.65
Super-Sulphur No. 1	lb.	.50 @	—
Super-Sulphur No. 2	lb.	.18 @	.25
Tensilac, No. 41	lb.	.65 @	—
Thiocarbanilide, kegs	lb.	.28½ @	—
Trimene	lb.	.75 @	—
base	lb.	1.20 @	1.35
Triphenylguanidine	lb.	.69 @	.73
Tuads	lb.	3.25 @	3.50
Vulcone	lb.	.75 @	.79
Z. 88	lb.	.75 @	1.00
Zimate	lb.	4.00 @	—

Inorganic

Lead, sublimed blue	lb	.10 @	.10½
Lead, white	lb.	.09¾ @	—
Litharge, domestic	lb.	.10¼ @	—
Magnesia, calcined, light	lb.	.06½ @	—
heavy	lb.	.04½ @	—

COLORS

Blacks (See Compounding Materials)

Blues

Prussian	lb.	.33 @	.35
Ultramarine	lb.	.08 @	.35

Browns

Siena, Italian	lb.	.04 @	.06
Umber, Turkey	lb.	.04 @	.06

Greens

Chrome, light	lb.	.27 @	.31
medium	lb.	.29 @	.32
dark	lb.	.31 @	.34
Chromium Oxide, bbl.	lb.	.31 @	.38

Reds

Antimony crimson, 15/17	lb.	.27 @	—
sulphur free	lb.	.48 @	.50
golden 15/17 F.S.	lb.	.16 @	.22
Indian English	lb.	.11 @	.13
Oximony	lb.	.13¼ @	—
Para toner	lb.	.80 @	.90
Red oxide, reduced	lb.	.10 @	.11
pure	lb.	.14 @	.15
Toluidine toner	lb.	1.75 @	1.85
Venetian red	lb.	.01½ @	.05
Vermillion, quicksilver, English	lb.	1.55 @	1.65

Whites

Lithopone, Akcolith	lb.	.05¾ @	.06
Lithopone, Azolith	lb.	.05¾ @	.06⅛
Lithopone, Vanolith	lb.	.10½ @	—
Titanox	lb.	.12 @	.12½
Calc. Base Pigment	lb.	.10½ @	.11
Zinc Oxide—American Process			
American Azo: ZZZ (lead free)	lb.	.07¾ @	—
ZZ (under 5% leaded	lb.	.06⅝ @	.06⅞
Zinc Oxide—French Process			
White seal	lb.	.11⅝ @	—
Green seal	lb.	.10⅝ @	—
Red seal	lb.	.09⅝ @	—

Yellows

Chrome	lb.	.17 @	.18
Ocher, French medium	lb.	.03 @	.03¼
domestic	lb.	.01⅝ @	.02

COMPOUNDING MATERIALS

Aluminum Flake (f.o.b. plant)	ton	21.85 @	24.50
Hydrate light	lb.	.16½ @	.17
Ammonia carbonate	lb.	.13½ @	.14
Are-O-Sol	ton	8.00 @	11.00
Asbestine	ton	14.75 @	18.00
Barium carbonate	ton	50.00 @	52.00
Barium Dust	lb.	.05 @	.06
Barytes southern off-color,	ton	12.00 @	18.00
Western prime white	ton	23.00 @	—
imported	ton	27.00 @	36.00
Basofor	lb.	.04½ @	—
Blacks			
Arrow "Aerflotad"	lb.	.08 @	.12
Bone Black	lb.	.05½ @	.11
Carbon, compressed	lb.	.07½ @	.11½
" uncompressed	lb.	.07 @	.11
Drop Black	lb.	.06 @	.10
Lamp "	lb.	.12 @	.40
Micronex	lb.	.08 @	.12
Thermatomic carbon	lb.	.05 @	—
Velvetex carbon	lb.	.04 @	.07
Blanc fixe dry f.o.b. works	lb.	.04 @	—
Carrara filler	lb.	.01¾ @	.02
Catalpo (fact.)	lb.	.02 @	—
Chalk	lb.	.02½ @	.04½
Clay, China, domestic	ton	8.00 @	9.00
Aerfloted Suprex	ton	9.00 @	20.00
Blue Ridge, Dark	ton	9.00 @	—
" " Light	ton	12.00 @	—
Dixie	ton	15.00 @	30.00
Langford	ton	12.00 @	22.00
Mineral Flour, c. l. fob mine	ton	20.00 @	23.00
Tensulite		15.00 @	—
Glues, extra white	lb.	.20 @	.29
medium white	lb.	.19 @	.25
common bone	lb.	.14 @	.15
Graphite flake, bbls.	lb.	.06½ @	.10
Magnesia, carbonate	lb.	.07 @	.09
Mica, powdered	ton	65.00 @	80.00
Rotton Sone (powdered)	lb.	.02½ @	.04½
Soapstone, powdered	ton	15.00 @	22.00
Starch, powdered	cwt.	3.30 @	3.70
Talc, domestic	ton	16.00 @	18.00
Terra Alba	cwt.	1.15 @	1.75
Tripoli, white	lb.	.01¾ @	.02
Whiting, commercial	cwt.	.85 @	1.00
English cliffstone	cwt.	1.50 @	—
Quaker	ton	13.00 @	15.00
Superfine	ton	10.00 @	12.00
Sussex	ton	8.00 @	10.00
Vansulite	ton	12.50 @	—
Wood pulp XXX	ton	45.00 @	—
" " X	ton	25.00 @	—

MINERAL RUBBER

Genasco (factory)	ton	50.00 @	52.00
Granulated M.R.	ton	33.00 @	38.00
Hydrocarbon, Hard	ton	28.00 @	34.00
Hydrocarbon, Soft	ton	28.00 @	34.00
320/340 M.P. hydrocarbon (c. l. factory)	ton	47.00 @	52.00
300/310 M.P. hydrocarbon (c. l. factory)	ton	42.00 @	47.00
Paradura	ton	70.00 @	72.50
Robertson, MR, solid	ton	35.00 @	75.00
M.R. (gran)	ton	42.00 @	80.00

SOFTENERS

Acids

Nitric, 36 degrees	cwt.	5.00 @	5.25
Sulphuric, 60 degrees	ton	10.50 @	11.50
66 degrees	ton	15..00 @	16.00
Tartaric, crystals	lb.	.31½ @	—

Acids, Fatty

Stearex	lb.	.10 @	.14
Stearic, single pressed	lb.	.10 @	.11
double pressed	lb.	.12 @	.13
triple pressed	lb.	.14 @	.15

Alkalies

Caustic soda, 76%	cwt.	3.10 @	—
Soda ash, 58% C.L.	cwt.	1.37½ @	1.40

Oils

Castor, No. 3 bbls.	lb.	.13½ @	—
Corn, crude, bbls.	lb.	.09¾ @	.10
refined	lb.	.11 @	—
Cottonseed, crude		.08½ @	—
Cycline	gal.	.26 @	.34
Fluxrite	lb.	.05 @	.06
Glycerine, C.P. drums	lb.	.27 @	.27½
Linseed, Raw C.L. bbl.	lb.	.09½ @	—
Moldrite	lb.	.05 @	.06
Palm Lagos	lb.	.08⅝ @	.08¾
Niger	lb.	.08 @	.08⅛
Vansulol	lb.	.10½ @	—
Peanut, domestic, crude	lb.	.11 @	—
Petrolatum, white	lb.	.08⅞ @	.09
amber	lb.	.03¾ @	.04
dark amber	lb.	.03⅜ @	.03½
Pine, steam distilled	lb.	.70 @	—
Rapeseed, refined	gal.	.75 @	.80
Rosin, first rectified	gal.	.70 @	—
second rectified	gal.	.73 @	—
Synthecite	lb.	.06 @	—

Resins and Pitches

Pitch, Burgundy	lb.	.06½ @	.07⅛
coal tar	gal.	.05½ @	.06
pine	bbl.	9.00 @	10.00
Rosin, grade K	bbl.	14.25 @	—
Pigmentar	gal.	.33 @	.41
Tar Retort	bbl.	15.50 @	16.00
kiln burned	bbl.	16.00 @	16.50

Solvents

Acetone, pure	lb.	.12 @	—
Alcohol denatured, No. 1 bbls.	gal.	.35 @	.42
Benzol, 90%	gal.	.23 @	—
pure		.24 @	—
Carbon bisulphide	lb.	.05½ @	.06¼
Carbon tetrachloride		.06¾ @	—
Motor gasoline, steel bbls.	gal.	.22 @	—
Naptha, V. M. & P.	gal.	.16¾ @	—
Turpentine, spirits	gal.	.79 @	.80
wood	gal.	.74 @	.76

Waxes

Beeswax	lb.	.39 @	.40
Carnauba, No. 1	lb.	.60 @	61
Ceresin, white	lb.	.10 @	.11
Montan, crude	lb.	.06 @	.06½
Ozokerite, black	lb.	.24 @	.25
green	lb.	.26 @	.30

ANTI-OXIDANTS

Age-Rite	lb.	.85 @	.90
Antox	lb.	.88 @	—
VGB	lb.	.66 @	—

SUBSTITUTES

Black	lb.	.08 @	.14
White	lb.	.10 @	.16
Brown	lb.	.10 @	.15

VULCANIZING INGREDIENTS

Ethyl Chloride, Cyl.	lb.	.34 @	—
" " Drums	lb.	.24 @	—
Sulphur Chloride (drums)	lb.	.04 @	.05
Sulphur flour			
Superfine, bags	cwt.	2.20 @	2.80
" bbls.	cwt.	2.55 @	3.10
100% pure, refined, bags	cwt.	2.60 @	3.15
bbls.	cwt.	2.95 @	3.50

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535 Fifth Avenue — New York, N. Y.

Firm Undertone in Tire Fabric Market

Encouraged Both by Orders Ahead and Strength of Cotton Market, Mills Continue to Decline Low Bids

NEW YORK, March 3, 1927—Although tire manufacturers have been much more disposed to cover their future tire fabric requirements up to the close of the year, they found mills ready to book this business only when it involved full prices. Factors stated that the advancing price of cotton made it impossible for them to accept business at prices they were quoting a month ago, as raw cotton has advanced two cents a pound since December. Bids under quoted levels were firmly rejected in most instances, but competition for business was so keen that bids for large quantities at a shade under the market constituted a strong temptation, and mills in need of further business did not hesitate to accept these offers, despite the fact that they held promise of little profit.

Inquiries for futures were numerous, but little business of this kind was reported placed, due to the inability of mills to meet buyers' ideas. A fair number of smaller contracts were placed for nearby delivery, several of which called for 23s 5-3 ply, 13 pound breaking strength at 37 cents. For this construction, 36 cents, or 36½, were the prices usually bid.

Most of the mills are well satisfied with the situation and point out that tire fabric consumption increased to such an extent during 1926 that they anticipate a very good year ahead. They point to future orders as an indication of a satisfactory situation.

Veto Unsettles Cotton Market

Business in the cotton market was fairly good considering the various unsettling factors, such as the holiday, the occurance of first notice day for March and the fate of the McNary-Haugen farm relief measure which was vetoed by the President. The fear of a veto of the farm bill and anticipation of the notice day made for an easier tone at the beginning of last week. Although it had been expected that a large volume of notices would be issued, there was the usual nervousness as to the effect of these notices on the market.

It was also anticipated that President Coolidge would veto the farm bill, and as the market had advanced on the passage of the measure through Congress, it was natural that it should fall off when the bill was vetoed. As soon as it was learned that the notices for 158,000 bales in New York and 30,000 bales in New Orleans were being cared for, the March position rallied nearly 30 points and later months were fairly steady, although they did not improve as much as the near months owing to the fact that the trade bought March and sold the later months. Most of the cotton tendered on March contracts were cared for by the same interests issuing the notices and there was no indication at the time of this writing that any of the cotton to be received on March contracts will be exported or shipped to spinners.

When the farm relief bill was vetoed the first effect was a dip of about ten points, but at that decline all the offerings were taken and prices quickly rallied. It was stated that the veto of the bill would actually help the market by forcing farmers to depend on their own resources and as a result they would be compelled to cut acreage.

Sheetings

A fair demand was reported for sheetings during the past fortnight, with sales of some constructions aggregating as much as several hundred thousand yards to the lot. Prices were firm, but a sale of about 5,000 pieces of 40-inch 3.60-yard sold at 9 cents, which was one-fourth of a cent under the market. A number of contracts were placed for special constructions at prices which were not made public.

Ducks

Demand for cotton duck during the past two weeks was only moderate, but fairly regular, each day bringing its quota of orders. Quotations have been changed little, and the only evidence of price shading was in the heavy goods section of the market where concessions were made on goods of inferior quality. Mills are well sold ahead for the second quarter. Little interest in covering far future requirements was manifested.

Current COTTON and FABRIC *Quotations*

COTTON CLOSING PRICES

	Open	High	Low	Close Mar. 3	Close Feb. 17
March	14.45	14.45	14.24	14.34	13.86
May	14.54	14.54	14.34	14.44	14.08
July	14.68	14.70	14.52	14.61	14.29
October	14.80	14.80	14.67	14.76	14.52
December	14.93	14.94	14.81	14.90	14.66

TIRE FABRICS

CORD			
Peeler, carded, 23/5/3	lb.	.36 @	.37
Peeler, carded, 23/4/3	lb.	.37½ @	.38
Peeler, carded, 13/3/3	lb.	.34 @	.34½
Peeler, carded, 15/3/3	lb.	.34½ @	.35½
Egyptian, carded, 23/5/3	lb.	.43 @	.44
Egyptian, combed, 23/5/3	lb.	.48 @	.49
CHAFERS			
Carded American, 8 oz.	lb.	.34½ @	.35½
Carded American, 10 oz.	lb.	.35½ @	.36½
Carded American, 12 oz.	lb.	.36 @	.37
Carded American, 14 oz.	lb.	.36½ @	37
LENO BREAKER			
Carded American, 8¼ oz.	lb.	.35 @	.36
Carded American, 10¼ oz.	lb.	.36½ @	.37½
SQUARE WOVEN			
Carded American, 17¼ oz. 13-11 ply	lb.	.37 @	.38
Carded American, 17¼ oz. 10-5 ply	lb.	.34 @	.35

SHEETINGS

40-inch 2.50-yard	yd.	.11 @	.11¼
40-inch 2.85-yard	yd.	.10¾ @	.11¼
40-inch 3.15-yard	yd.	.10½ @	—
40-inch 3.60-yard	yd.	.09 @	.09½
40-inch 3.75-yard	yd.	.07⅞ @	.08
40-inch 4.25-yard	yd.	.07 @	—

DUCKS

Belting and Hose	lb.	.28 @	.28½
Enameling	lb.	.29 @	.34
Sloe Ducks	lb.	.29½ @	.33½
Single filling	lb.	.11½ @	.14½
Double filling	lb.	.14½ @	.16

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Bunny Baby Pants	Pure Rubber Sheets
Sanitary Aprons	Rubber Bibs
Sanitary Elastic Belts	Crib Sheets
Sanitary Bloomers	Bathing Caps
Sanitary Stepins	Rubber Specialties
Powder Puff Pockets	Rubberized Sheeting
Rubber Gloves	Hot Water Bottles

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STATISTICAL SECTION

TIRES & TUBES
CRUDE RUBBER

AUTOMOBILES
GASOLINE

AS SHOWN by the table below, arrivals of rubber in January were very large, larger in fact than in any month in 1926 or 1925. Moreover, consumption failed to increase sufficiently to set a similar record with the result that a comfortable addition was made to stocks in the United States. The average declared value per pound of the rubber imported in January was the lowest for any month since June, 1925. The steady decline in the declared value throughout 1926 is clearly shown in the table on this page.

No data is yet available about crude rubber imports in February. It is estimated that the quantity imported will approximate 27,000 tons with consumption ranging from 30,000 to 32,000 tons. Since the first of these estimates is based on the number of cases of rubber landed at New York during the month, it is apt to be pretty nearly correct. The consumption estimate, however, is more a matter of judgment and may prove to be incorrect to a greater degree. Nevertheless, it appears certain that the tonnage of rubber used in February will exceed the tonnage brought in.

The price of rubber has been stronger in both London and New York, as is shown in the tables on the next page. The average price in London during February, the first month of the current restriction quarter, was a trifle more than 19 pence. During March and April the price would have to firm up to around 22 pence to keep the exportable percentage from being cut to 60%.

PLAN OF THE SECTION

The statistics included in this section have been chosen for their constant importance to the rubber industry. The tables are reprinted in the same relative position in every issue, each table being kept current by the addition of new figures as soon as they become available. The section accordingly affords the most up-to-date, complete and convenient statistical service in the industry.

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U. S. Imports and Exports of Crude Rubber.

	Gross Imports			Re-exports			Net Imports
YEARS	Long Tons	Total Declared Value	Average Declared Value per pound Cents	Long Tons	Total Declared Value	Average Declared Value per pound Cents	Long Tons
1921	185,394	73,772,677	17.76	5,716	2,414,924	18.86	179,678
1922	301,076	101,843,188	15.10	4,809	1,921,828	17.84	296,267
1923	309,144	185,060,304	26.72	8,772	5,672,319	28.87	300,372
1924	328,056	174,231,331	23.71	10,309	6,057,637	26.23	317,747
1925	396,642	429,705,014	48.36	14,827	19,847,753	59.76	381,815
1925:							
Jan.	32,898	22,406,756	30.41	1,162	963,593	37.02	31,736
Feb.	24,696	18,532,115	33.50	979	779,406	35.53	23,717
Mar.	33,072	25,146,691	33.94	1,345	1,105,119	36.69	31,727
Apr.	32,506	24,874,562	34.16	1,130	1,009,305	39.86	31,376
May	36,932	30,311,754	36.64	1,203	1,323,445	49.12	35,729
June	31,569	26,855,883	37.98	1,198	1,577,106	58.75	30,371
July	32,455	33,701,723	46.36	1,278	2,132,681	74.52	31,117
Aug.	33,412	39,834,348	53.22	1,131	1,623,258	64.08	32,281
Sept.	26,367	36,686,013	62.11	1,154	1,820,360	70.41	25,213
Oct.	34,651	50,027,338	64.45	1,132	1,989,291	78.48	33,519
Nov.	37,755	56,271,963	66.54	1,605	2,898,930	80.65	36,150
Dec.	40,329	65,055,868	72.02	1,510	2,625,259	77.61	38,819
	396,642	429,705,014	48.36	14,827	19,847,753	59.76	381,815
1926:							
Jan.	42,404	72,528,151	76.36	2,084	3,747,505	80.28	40,320
Feb.	32,865	58,733,870	79.78	1,430	2,280,168	71.17	31,435
Mar.	42,152	70,589,581	74.76	1,836	2,735,234	66.51	40,316
Apr.	34,544	48,742,589	62.99	1,128	1,605,093	63.58	33,416
May	29,756	36,896,080	55.35	1,052	1,558,987	66.17	28,704
June	24,900	34,498,561	61.85	1,105	1,371,217	55.41	23,795
July	35,820	33,061,470	41.20	1,554	1,745,854	50.09	34,266
Aug.	27,400	24,670,752	40.21	1,318	1,339,563	45.88	26,082
Sept.	37,112	32,625,022	39.02	1,437	1,519,870	47.20	35,675
Oct.	29,333	25,300,483	38.50	1,366	1,316,270	43.02	27,967
Nov.	38,925	34,661,631	39.97	1,482	1,320,461	42.00	37,443
Dec.	37,754	33,261,366	39.33	1,904	1,841,305	43.16	35,850
	413,338	505,817,807	54.63	17,671	22,470,583	56.77	395,667
1927:							
Jan.	43,340	36,753,719	37.99	1,526	1,444,734	42.23	41,814

U. S. Consumption of Crude Rubber

(Rubber Association of America statistics raised to 100 per cent—All figures in long tons)

	Figures on Monthly Basis						
	1921	1922	1923	1924	1925	1926	1927
January	5,045	16,938	30,106	29,058	29,638	32,196	31,518
February	5,955	14,767	30,149	25,736	29,761	31,136	
March	9,190	21,408	36,629	28,385	33,498	32,936	
April	13,084	19,294	29,085	27,129	34,139	32,696	
May	16,023	23,246	36,155	25,845	35,322	29,364	
June	16,142	31,713	24,272	22,753	35,822	28,598	
July	18,310	24,522	17,685	23,396	36,053	27,577	
August	23,649	29,361	20,359	28,982	35,909	34,533	
September	16,705	24,410	17,594	31,497	31,691	32,904	
October	16,814	26,881	21,321	31,520	29,047	29,836	
November	14,105	24,950	20,437	27,289	28,853	28,080	
December	15,482	25,070	21,902	27,199	28,748	26,293	
TOTALS	170,504	282,560	305,694	328,769	388,481	366,149	

	Figures on Quarterly Basis					
Quarter	1921	1922	1923	1924	1925	1926
Jan./Mar.	65,463	127,360	96,776	87,609	95,263	94,301
Apr./Jun.			89,493	75,674	104,099	87,109
Jul./Sept.	105,962	155,067	55,621	83,813	99,493	93,793
Oct./Dec.			63,617	92,656	85,789	83,212
Total	171,425	282,427	305,507	339,752	384,644	358,415

Note: The Rubber Association estimates its monthly rubber consumption figures to be 90% complete. Up until 1925 the quarterly figures were likewise estimated to be 90% complete; beginning with 1925 an estimate of 92% completeness has been used. These estimates have been used in raising the figures in this table to 100%. The quarterly figures are generally regarded as the most authentic; the monthly figures may be accepted as preliminary.

Rubber Invoiced to the U. S.

(Reported by American Consuls—Quantities in Long Tons)

During the Week Ended	From Br. Malaya	From Ceylon	From Dutch East Indies	From London & Liverpool	Total
Dec. 25	4,468	1,227	1,142	80	6,917
Jan. 1, 1927	4,082	690	1,901	55	6,728
Jan. 8	5,229	1,004	1,337	34	7,604
Jan. 15	6,698	737	1,488	96	9,019
Jan. 22	4,117	1,756	1,508	239	7,620
Jan. 29	6,819	1,080	1,349	197	9,445
Feb. 5	3,187	1,001	1,147	150	5,485
Feb. 12	4,414	327	1,412	153	6,306
Feb. 19	4,284	835	1,209	720	7,048
Feb. 26	5,071	45	1,827	570	7,513

Daily Spot Closing Prices of Ribbed Smoked Sheet Rubber—*New York Market, in Cents per Pound*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
1925																																
Jan.	—	39⅞	39⅝	—	39	39	39¼	38¼	38⅝	38⅞	35⅝	37⅞	36½	36⅜	35⅞	35⅞	35⅝	35⅝	34⅞	34⅜	35	35½	36¼	36⅛	—	35⅞	35⅛	35⅝	35	—	35⅞	36⅜
Feb.	—	35⅞	34⅞	34½	34½	34⅛	35⅜	—	35⅜	34⅜	35⅛	—	35⅛	36⅛	35⅜	36⅜	36⅜	35⅜	36⅜	36⅜	36	—	—	37⅛	37⅛	37⅛	37⅜	38⅛	—	—	36	36
Mar.	—	38⅝	38⅜	38⅜	38	39¾	39¾	—	39¾	40⅜	40	39⅝	40	40	—	40	40½	41	41¼	41⅜	41	—	42½	42⅜	43½	43⅜	43⅜	43⅜	—	42¾	41	43⅜
Apr.	41¼	41⅜	41¼	41⅜	—	42⅜	42⅜	43⅜	43⅜	—	—	57	57	59	44⅜	44⅜	44	44½	—	44	44⅜	43¾	43¾	43⅞	44¼	44⅜	45⅜	45⅜	44½	44⅜	45	43⅜
May	45	45⅞	—	47¼	46⅞	48⅝	50⅜	52½	55⅜	—	59	76⅜	74	75⅜	74⅜	60⅜	64¼	—	63	61¾	60⅜	—	61⅜	65	63	63¼	65⅜	69½	—	—	—	58½
June	69½	72	—	76½	75¾	—	—	74⅜	73⅜	74	75¼	74⅜	110	105⅝	110⅝	71⅜	71⅜	72⅜	73⅜	76¼	—	79¾	83⅛	85⅜	82⅝	87	89⅜	96⅜	85⅜	82⅝	89¾	77¼
July	81⅛	81⅞	74⅜	—	88⅜	88⅜	90½	95⅛	94⅜	99⅜	106½	72½	76½	80¾	77⅜	93⅜	93¾	116⅜	—	80½	77⅜	82½	117⅛	112¼	82½	85¼	107⅜	96⅜	93¼	89¾	93¾	103⅜
Aug.	94½	—	85⅝	88⅜	85⅜	86⅜	—	79	80½	71¾	83	86½	92	80¾	93⅜	93¾	94¼	92¾	92¾	—	92	99	93½	90	89	98	85½	85½	87¼	90	—	88
Sept.	88¼	87¼	85	81¼	81¼	—	97½	—	99¼	101	99½	97¾	95½	105½	—	99¾	99	107	109¾	110¾	102	99¼	99¼	99¼	106¼	—	99½	99¼	101½	99¼	100¼	98
Oct.	91¼	91¼	92	81¼	94½	97	100¼	—	98¼	99½	100¼	101¾	104½	105½	—	99¾	90¼	93	107	88¼	110½	—	—	108¾	108¾	—	108¾	108¾	—	107	—	104¾
Nov.	—	99¾	—	98¾	98¼	100	—	—	99¼	106	105½	105½	—	101	—	99¾	90¼	93	107	88¼	86¾	—	88¾	88¾	88¾	—	91	93	—	91¼	91¼	96½
Dec.	106¾	108½	107¾	107¼	108¼	—	108	109	109¼	106	105½	105½	—	101	—	99¾	90¼	93	107	88¼	86¾	—	88¾	88¾	88¾	—	91	93	—	91¼	91¼	96½
1926																																
Jan.	—	—	—	87	87¼	85½	86¾	87½	87¾	—	88¾	88¼	88¼	85⅝	84½	82½	75½	75½	75½	75½	75	72	72½	—	68	66½	67	69¾	70¼	69	—	79½
Feb.	67	67⅛	—	66¾	68	69	—	69	67	65	66	66	65½	63	—	60½	60	59	60	59	—	—	56	—	55	52	51	—	—	—	—	62¾
Mar.	55	58	53	53½	53¾	57½	56	56¾	55½	61	60	63	62	62	62	60½	61	61	61½	61½	61	61⅛	61	60	60	59½	59½	59½	58½	58	58	59
Apr.	59	—	59	—	59	58	56¼	56¾	53	53	49	—	51¾	50¾	48	48	47	47	47½	48½	47½	48	—	46½	46	48	48	48	48	49½	—	51¾
May	48¼	—	—	50¼	49½	49¼	49¼	49½	—	—	49¼	49	48¾	47¾	47½	47½	47	47	47½	47½	—	46⅜	43½	43½	46	45	45	43	42	—	42	47¾
June	41½	42	41½	42	41½	—	41¼	42	43	—	42	43	42	42	43¾	43	43	43	44	—	44	44	41½	41½	43	42	41½	42	42	42	42	42½
July	42	42	42	—	—	41½	41¼	41½	41½	41½	41½	41½	41½	41½	40	40	38	40	40	41½	41½	41	41½	41½	39	41½	41	41	41	39¾	39	41¼
Aug.	—	38¼	38½	—	—	38¾	39	—	38¾	37¾	37½	37½	37½	38½	37½	37½	38	39	39	—	39	39½	—	39¼	39	39½	41½	39½	39½	40	39	38½
Sept.	40¼	40¼	40¼	—	37	—	40¼	—	40¼	40¼	40¼	40½	40½	40¼	40¼	40¼	40¼	40½	41	42¼	41	41½	42⅝	42	—	42¾	42½	42¼	42½	—	41	42½
Oct.	43	43	—	43¼	42¾	42¾	42¾	42¾	42¾	42¾	42¾	42½	42¾	43	43	43¼	43¾	42⅝	42⅝	42⅝	42¾	42½	42½	42½	42½	42½	42½	42¾	42½	41½	—	42½
Nov.	41¼	—	41	41¼	41½	41½	41½	41½	41½	42⅜	41¼	41½	41½	41¼	40¾	40¾	40½	40½	40½	39½	39	38	—	38½	38	38	37¾	38	37	38½	—	38½
Dec.	36¾	37½	37½	37½	—	37	37	37½	37	37	37½	—	37¾	37¾	38	38	38	38½	38¼	38¾	39	38	38¼	38¾	38	39	39	38½	38	38½	38	38½
1927																																
Jan.	—	—	38½	39	39¼	39¼	40¾	40½	40¾	40¾	40¾	40¾	40¾	39¾	39¾	39¾	39¾	38¾	38½	38¾	38½	38¾	38¾	38¼	38	38	38¾	38¾	38	38	—	38¾
Feb.	37½	37½	37½	37¼	37½	—	37¾	37¾	37¾	37¾	37¾	—	38¼	38	—	38	38¼	38¾	39	38½	38¾	38¾	38¾	—	38¼	38	38½	38½	39½	—	—	38¼
Mar.	39¾	39¾	40	40¼	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apr.																																
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Dec.																																

Average Spot Closing Prices--Ribbed Smoked Sheets

(New York Market)

Average Price per Pound for Years 1910-1921

Year	*Cents*	*Year*	*Cents*	*Years*	*Cents*
1910	206.60	1914	65.33	1918	60.15
1911	141.30	1915	65.85	1919	48.70
1912	121.60	1916	72.50	1920	36.30
1913	82.04	1917	72.23	1921	16.36

Average Monthly Price per Pound since 1922

Months	1922 *Cents*	1923 *Cents*	1924 *Cents*	1925 *Cents*	1926 *Cents*	1927 *Cents*
Jan.	18.82	32.73	25.86	36.71	79.50	38.75
Feb.	16.12	35.14	25.29	36.01	62.25	38.25
Mar.	14.53	34.21	22.83	41.00	59.00	
Apr.	15.99	32.48	22.51	43.64	51.25	
May	15.25	27.39	19.89	58.47	47.75	
June	15.11	26.88	18.81	77.26	42.50	
July	14.67	26.10	22.16	103.16	41.03	
Aug.	13.93	28.84	26.17	82.99	38.50	
Sept.	14.44	28.95	27.56	88.88	41.00	
Oct.	19.78	26.93	31.13	98.01	42.50	
Nov.	23.88	27.14	34.33	104.80	38.50	
Dec.	27.42	26.60	37.88	98.51	38.25	
Average for Year	17.50	29.45	26.20	72.46	48.50	

London Closing Prices of Ribbed Smoked Sheet

(In pence per pound)

Fifth Restriction Year—Second Quarter

Day	*Feb.*	*March*	*April*	*Day*	*Feb.*	*March*	*April*
1	18⅞	19¾		16	18⅞		
2	18¾	19¾		17	19		
3	18⅝	19¾		18	19¼		
4	18¾	20		19	19⅜		
5	18¾			20	—		
6	—			21	19¼		
7	18⅞			22	19¼		
8	18¾			23	19⅜		
9	18⅞			24	19⅜		
10	18⅞			25	19½		
11	18¾			26	19½		
12	18⅞			27	—		
13	—			28	19⅝		
14	19			29	—		
15	19			30	—		
				31	—		

(The average price for the period for which daily prices are reported above is approximately 19.105 pence. The British Colonial Secretary has announced that only 60% of the standard production will be exportable from the restricted area during the next quarter if the price during the entire current quarter does not average at least 21 pence.)

Average Price in Previous Quarters

Quarter	1922-23	1923-24	1924-25	1925-26	1926-27
Nov.-Jan.	14.285	14.175	17.9983	46.709	19.265
Feb.-Apr.	16.858	12.917	19.356	28.103	
May-June	14.242	10.974	38.469	21.001	
Aug.-Oct.	14.944	14.632	43.269	20.199	

Spot Closing Cotton Prices

(Middling Upland Grade—New York Market)

Recent Daily Price Per Pound

Day of Month	*Feb. Cents*	*March*	*Day of Month*	*Feb. Cents*	*March*	*Day of Month*	*Feb. Cents*	*March*
1	13.65	14.85	11	14.10		21	14.00	
2	13.70	14.70	12	——		22	——	
3	13.80	14.65	13	——		23	14.25	
4	14.00		14	14.00		24	14.20	
5	14.15		15	14.20		25	14.30	
6	——		16	14.10		26	14.40	
7	14.00		17	14.15		27	——	
8	14.15		18	14.20		28	14.50	
9	14.25		19	14.10		29	——	
10	14.15		20	——		30	——	
						31	13.55	

Average Monthly Price Per Pound

Month	1925 *Cents*	1926 *Cents*	1927 *Cents*	*Month*	1925 *Cents*	1926 *Cents*	1927 *Cents*
Jan.	23.99	20.85	13.42	Aug.	23.72	18.57	
Feb.	24.70	20.60	14.10	Sept.	23.79	17.02	
Mar.	25.64	19.35		Oct.	21.77	13.14	
Apr.	24.54	19.13		Nov.	20.94	12.86	
May	23.41	18.92		Dec.	20.06	12.68	
June	24.13	18.57		Average for Year	23.45	17.53	
July	24.68	18.71					

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THE MARKET PLACE Section Continued on Second Page Following.

Stock of Crude Rubber in the U. S.

(All Quantities in Long Tons)

At End of	ON HAND			AFLOAT			ON HAND AND AFLOAT		
	1925	1926	1927	1925	1926	1927	1925	1926	1927
Jan.	60,870	55,198	76,172	36,759	46,296	45,312	97,629	100,434	121,484
Feb.	54,109	58,035		41,475	46,935		95,584	104,970	
Mar.	52,494	61,822		40,577	43,567		93,071	105,389	
Apr.	50,143	55,261		53,465	41,905		103,608	97,166	
May	52,064	64,360		46,846	40,303		98,910	104,663	
June	50,997	60,460		51,202	40,907		102,199	101,367	
July	46,245	64,900		46,003	38,062		92,248	102,962	
Aug.	42,354	60,870		41,254	37,360		83,608	98,230	
Sept.	36,367	62,078		55,151	42,464		91,518	105,542	
Oct.	34,085	64,989		51,098	52,930		85,183	117,919	
Nov.	34,885	69,385		42,692	47,311		86,577	116,696	
Dec.	51,215	72,520		48,208	52,020		99,423	124,540	

(Rubber Association of America figures raised to 100%.)

Stock of Crude Rubber in London

(No. of tons in Wharves and Warehouses, including Latex)

At End of:	1920	1921	1922	1923	1924	1925	1926
January	19,300	56,573	67,252	73,498	57,460	27,172	9,994
February	18,329	59,439	67,623	70,483	56,732	23,425	10,004
March	18,969	63,913	66,670	63,438	55,647	18,104	13,750
April	20,072	68,759	68,637	58,770	54,559	12,949	18,951
May	20,921	70,403	70,146	54,439	51,615	5,895	20,896
June	22,517	69,408	71,597	51,050	51,115	5,318	23,894
July	25,346	71,065	71,515	49,937	52,073	4,258	27,727
August	30,674	73,211	72,112	48,427	49,700	4,619	30,764
September	35,504	72,175	70,977	54,523	44,011	5,453	35,077
October	41,743	69,229	68,536	58,891	37,523	5,086	42,141
November	45,550	70,786	68,548	60,074	33,593	3,869	44,057
December	50,652	69,792	72,299	60,246	29,488	5,697	48,921

At End of Recent Weeks

1926	First Saturday	Second Saturday	Third Saturday	Fourth Saturday	Fifth Saturday
July	25,063	26,063	26,732	27,860	27,766
August	27,972	29,313	29,678	30,159	——
September	30,764	32,011	33,249	34,587	——
October	36,065	37,226	39,650	41,080	42,141
November	43,045	43,299	44,553	43,859	——
December	44,395	46,349	47,324	48,382	——
1927					
January	48,948	50,756	52,484	53,662	54,786
February	55,740	56,939	56,962	58,659	——

Rubber in Singapore and Penang

(Stocks held by Dealers—Quantities in Long Tons)

End of	1925	1926	1927	End of	1925	1926	1927
Jan.	15,925	15,726	25,440	July	15,894	23,101	
Feb.	17,320	13,653		Aug.	17,251	23,362	
Mar.	17,261	18,389		Sept.	16,526	25,997	
Apr.	15,368	16,328		Oct.	15,346	26,614	
May	15,804	16,967		Nov.	19,788	25,486	
June	15,884	19,416		Dec.	18,840	26,443	

Rims Inspected and Passed in U. S.

(Tire & Rim Association Reports)

	Total	Per Cent Balloons		Total	Per Cent Balloons
1923	23,140,620	0.6	1925	25,997,849	66.8
1924	21,863,720	19.7	1926	24,199,613	78.8
1926			1927		
July	2,123,368	84.8	January	1,489,078	77.0
August	2,378,850	82.3	February	1,753,224	84.4
September	2,365,518	80.7	March		
October	1,828,539	76.9	April		
November	1,210,472	77.0	May		
December	1,096,429	76.7	June		

U. S. Consumption of Gasoline

(In Barrels of 42 Gallons)

MONTHS	1924	1925	1926	1927
January	11,918,000	14,386,000	17,582,000	17,888,000
February	9,626,000	13,210,000	15,814,000	
March	10,961,000	14,890,000	19,302,000	
April	14,583,000	19,013,000	20,848,000	
May	15,889,000	20,459,000	24,213,000	
June	16,421,000	20,724,000	23,803,000	
July	18,610,000	22,879,000	24,752,000	
August	19,825,000	22,323,000	26,912,000	
September	16,871,000	20,177,000	22,929,000	
October	18,029,000	19,826,000	23,973,000	
November	16,607,000	18,024,000	20,618,000	
December	15,663,000	17,954,000	21,419,000	
TOTAL	185,003,000	223,865,000	262,165,000	

U. S. Tire and Tube Statistics[1]

(All Figures Represent Thousands)

AUTOMOBILE CASINGS

Figures for Recent Years

	1922	1923	1924	1925	1926
Production	40,932	45,259	51,633	60,845	61,237
Shipments	39,987	45,204	50,120	59,262	59,002
Inventory[2]	6,132	5,772	7,427	8,142	10,456

Figures for Recent Months

	PRODUCTION		SHIPMENTS		INVENTORY	
	1925	1926	1925	1926	1925	1926
Jan.	4,740	4,587	4,013	2,974	7,949	9,947
Feb.	4,908	4,865	3,924	3,436	8,928	11,164
Mar.	5,276	5,456	4,657	4,561	9,510	12,004
Apr.	5,341	5,346	5,498	4,980	9,088	12,461
May	5,467	5,023	5,954	5,211	8,611	12,343
June	5,418	5,422	6,737	5,724	7,243	11,968
July	5,587	4,950	6,298	6,337	6,421	10,592
Aug.	5,607	5,872	4,760	6,744	7,261	9,732
Sept.	5,007	5,706	4,569	6,040	7,681	9,318
Oct.	4,505	5,103	5,580	4,544	6,670	9,917
Nov.	4,229	4,324	3,671	3,733	6,955	10,297
Dec.	4,760	4,685	3,601	4,718	8,142	10,456

AUTOMOBILE INNER TUBES

Figures for Recent Years

	1922	1923	1924	1925	1926
Production	50,850	60,116	70,706	82,614	76,618
Shipments	49,673	59,072	68,016	81,004	71,591
Inventory[2]	7,643	8,425	11,052	11,313	16,200

Figures for Recent Months

	PRODUCTION		SHIPMENTS		INVENTORY	
	1925	1926	1925	1926	1925	1926
Jan.	6,343	6,809	5,576	3,723	11,570	14,361
Feb.	6,339	6,825	4,971	3,736	13,023	17,090
Mar.	7,000	7,030	5,711	4,987	14,236	19,131
Apr.	6,851	6,554	6,704	5,051	13,618	20,674
May	6,846	6,149	8,040	6,304	12,501	21,141
June	6,942	6,171	9,032	6,898	10,409	20,243
July	7,544	5,729	9,140	8,569	8,635	17,267
Aug.	7,618	7,424	6,923	9,579	9,271	15,462
Sept.	7,254	7,590	6,665	7,762	9,950	15,312
Oct.	6,612	6,208	7,845	5,474	8,726	15,929
Nov.	6,266	4,852	5,406	4,045	9,491	16,604
Dec.	6,999	5,277	4,991	5,463	11,313	16,200

(1) Rubber Association of America figures, raised to 100%. The Association estimates its figures to be 75% representative or complete when issued and that basis has been accepted when preparing the statistics in this table.

(2) Held by manufacturers at end of period indicated.

Automobile Production

	Passenger Cars			Trucks		
	Total	United States	Canada	Total	United States	Canada
1920	1,883,158	1,799,522	83,636	322,039	311,531	10,508
1921	1,514,000	1,452,902	61,098	147,550	142,402	5,148
1922	2,397,827	2,302,923	94,904	251,434	244,285	7,149
1923	3,719,164	3,589,936	129,228	378,288	361,078	17,210
1924	3,262,764	3,144,999	117,765	378,106	360,625	17,481
1925	3,817,639	3,678,328	139,311	498,019	475,941	22,078
1926						
January	284,703	272,922	11,781	33,461	29,763	3,698
February	334,524	319,763	14,761	41,685	37,608	4,077
March	399,105	381,116	17,989	49,233	44,848	4,385
April	401,836	383,907	17,929	53,887	50,314	3,573
May	394,569	373,140	21,429	51,343	47,838	3,505
June	358,360	339,542	18,818	47,043	44,110	2,933
July	328,816	315,863	12,953	41,847	39,592	2,255
August	393,040	380,258	12,782	47,907	45,404	2,503
September	363,537	350,913	12,624	51,299	46,428	4,871
October	300,142	289,547	10,595	49,965	42,890	7,075
November	226,278	219,504	6,774	39,410	36,356	3,054
December	143,413	137,361	6,052	30,002	28,302	1,700
TOTAL	3,928,323	3,766,336	161,487	537,082	493,453	43,629
1927						
January	208,718	196,973	11,745	40,788	37,157	3,631
February						
March						
April						
May						
June						
July						
August						
September						
October						
December						
November						

ALL THE LEADERS

Are represented in this section. Purchasing agents can rely on the concerns listed as thoroughly reliable in every way.

The Market Place

2.

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Trimene Base, Heptene, Monex, Crylene, Lithex, Aniline Oil.
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TIRE BUILDING MACHINES
The Banner Machine Co.
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DRY KILN—for drying crude rubber and chemicals—Hunter Process.
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HEELS, soles and strips
We can make any special brand with your molds or with ours. Best quality at the lowest price. Consult us.
P. & B. Rubber Mfg. Co., Inc.
Laurel Hills, Long Island, N. Y.

THE MARKET PLACE Section Continued on Second Page Following.

Exports of Crude Rubber from Principal Producing Countries

(Figures in Long Tons)

	British Malaya[1]						Dutch East Indies[2]				French[3]		
	Gross Exports	*Imports*	*Net Exports*	*Ceylon*[3]	*India & Burma*[3]	*Br. North Borneo*[4]	*Siam*[4]	*Java & Madura*	*Sumatra E. Coast*	*Other D.E.I.*	*Indo-China*	*Amazon Valley*[5]	*Total*[7]
1923	252,016	70,432	181,584	37,112	6,416	5,433	1,744	1,718	32,938	44,002	57,822	5,606	19,859	394,263
1924	259,760	107,419	152,341	37,351	7,697	6,485	1,892	2,962	42,446	52,499	80,347	6,688	23,164	413,872
1925	316,825	158,022	158,803	45,684	10,082	8,460	2,308	5,378	46,643	62,678	119,271	7,881	25,307	492,495
1925:														
Jan.	19,183	10,132	9,051	3,065	1,090	605	180	404	3,053	5,097	5,858	701	1,712	30,816
Feb.	21,622	10,071	11,551	2,207	1,121	469	148	283	3,490	5,139	8,569	586	2,977	36,540
Mar.	26,836	13,399	13,437	4,201	984	756	209	437	4,583	5,499	10,807	487	2,459	43,859
Apr.	22,414	11,751	10,663	3,250	684	483	164	384	4,121	4,663	8,536	482	1,585	35,015
May	26,667	12,979	13,688	2,600	585	717	189	489	3,624	4,455	12,006	599	2,588	41,540
June	27,894	14,706	13,188	3,502	831	1,046	195	430	4,187	4,667	10,644	833	1,653	41,176
July	24,809	16,192	8,617	4,487	680	955	218	533	4,719	5,244	10,516	411	1,142	37,522
Aug.	27,753	12,025	15,728	3,409	671	548	194	436	3,210	5,186	9,445	484	1,810	41,121
Sept.	29,425	12,913	16,512	4,758	745	766	218	533	3,364	4,913	10,628	764	2,140	45,341
Oct.	28,711	14,986	13,725	5,270	516	639	199	708	3,516	5,511	11,767	683	2,240	44,774
Nov.	31,648	14,904	16,744	3,980	1,044	838	186	411	4,657	6,349	11,958	991	2,620	49,778
Dec.	29,863	13,964	15,899	4,955	1,131	638	208	330	4,119	5,955	8,537	860	2,381	45,013
	316,825	158,022	158,803	45,684	10,082	8,460	2,308	5,378	46,643	62,678	119,271	7,881	25,307	492,495
1926:														
Jan.	30,452	10,237	20,215	4,058	1,273	416	196	288	4,397	6,277	8,081	915	1,284	47,400
Feb.	30,440	8,306	22,134	4,941	725	488	141	253	4,474	5,734	6,801	554	2,759	49,004
Mar.	35,012	14,800	20,212	5,708	1,113	792	232	418	4,865	5,612	11,880	573	2,126	53,531
Apr.	23,727	10,565	13,162	3,484	590	679	251	294	4,522	4,598	6,208	410	2,318	36,516
May	31,231	10,604	20,627	3,600	691	927	157	279	4,742	5,293	8,606	502	1,353	46,777
June	30,624	11,764	18,860	3,906	452	779	160	275	5,440	6,111	9,844	549	1,213	47,589
July	28,824	15,280	13,544	4,800	938	911	242	438	4,929	5,522	12,864	1,521	1,540	47,249
Aug.	34,625	13,595	21,030	5,246	521	890	168	316	4,418	3,472	10,349	378	1,624	48,412
Sept.	35,913	13,972	21,941	6,027	652	887	213	457	4,326	6,757	10,971	681	1,770	54,682
Oct.	39,367	15,203	24,164	6,026	635	805	271	385	4,193	6,988	11,513	661	2,067	57,708
Nov.	34,302	12,201	22,101	4,687	1,100	685	169	284	4,060	5,746	8,998	718	1,954	50,502
Dec.	36,811	14,716	22,095	6,361	1,180	894	172	338	5,026	7,106	12,333	790		
	391,328	151,243	240,085	58,844	9,870	9,153	2,372	4,025	55,392	69,216	118,448	8,252		

(1) Malayan net exports cannot be taken as Malayan production since much of the imported rubber contains a high percentge of moisture and impurities which are eliminated before it is re-exported; the Malayan figures do not contain rubber exported as latex which on the basis of 3 pounds per gallon amounted to 99 tons in 1923, 957 tons in 1924 and 3,101 tons in 1925. (2) Ceylon Chamber of Commerce statistics until 1926. (3) Official statistics. (4) Figures for Sarawak, British North Borneo and Siam are imports from these territories into Singapore through which port practically their entire production moves. (5) Exports from "Other Dutch East Indies" are chiefly native rubber which contains one-third of moisture and impurities for which no allowance has been made in the statistics; rubber shipped as latex has not been included and amounted to 6,355 tons in 1923, 2,735 tons in 1924 and 6,207 tons in 11 months of 1925. (6) Exports through Para, Manaos and Iquitos. (7) This total includes the net exports from British Malaya and all the figures shown for the other territories.

Net Imports of Crude Rubber into Principal Manufacturing Countries

(Long Tons)

	United States	*United Kingdom*	*France* (abd)	*Germany*	*Canada* (ac)	*Japan* (ac)	*Italy*	*Russia* (ce)	*Australia* (cf)	*Belgium* (d)	*Netherlands*	*Sweden* (abcd)	*Norway* (abc)	*Denmark* (abd)
1919	236,977	42,671	19,951	5,584	8,770	10,688	9,894	75	733	3,995	2,771	2,022	437	673
1920	248,762	56,844	15,868	11,890	11,912	6,015	6,123	62	1,040	3,840	5,510	1,567	241	479
1921	179,678	42,087	16,981	21,920	8,248	22,981	3,906	165	554	1,705	1,022	815	178	251
1922	296,267	11,724	27,644	27,546	9,366	16,449	6,430	2,453	2,649	172	-3,807	1,248	321	87
1923	300,372	12,700	31,067	18,519	13,299	17,181	8,489	4,506	1,631	2,184	792	1,391	448	354
1924	317,747	-11,550	34,488	22,727	14,420	19,612	8,764	824	3,127	2,688	-807	1,781	669	473
1925	381,815	4,061	36,911	33,937	19,825	12,743	11,412	7,088	4,217	2,930	875	1,690	701	440
1925:														
January	31,736	-284	2,147	4,303	1,432	797	552	333	192	331	109	164	64	16
February	23,717	-2,492	3,529	3,690	1,278	658	908	1,000	338	275	88	136	145	37
March	31,727	-3,396	3,924	2,784	2,349	689	1,463	1,083	357	373	56	183	77	71
April	31,376	-2,961	3,069	3,574	1,397	719	817	535	314	97	181	149	47	22
May	35,729	-8,650	3,223	3,834	1,532	863	1,060	1,999	385	228	47	126	47	16
June	30,371	619	2,387	3,239	1,681	2,095	1,506	59	378	329	120	97	43	74
August	32,281	3,825	1,109	2,942	1,582	786	650	16	341	176	28	114	45	24
July	31,177	2,204	1,827	2,606	1,613	813	631	85	297	169	76	119	53	35
September	25,213	5,369	4,633	2,667	1,202	936	939	234	429	283	136	102	54	20
October	33,519	1,203	3,039	2,325	1,799	1,060	914	21	243	255	60	159	38	38
November	36,150	2,466	4,654	1,260	1,712	2,140	1,157	190	512	226	-12	219	55	52
December	38,819	6,158	3,370	713	2,248	1,187	815	1,533	431	178	-14	122	33	35
1926:														
January	40,345	6,886	3,170	703	2,188	892	760	332	358	76	154	123	46	51
February	31,435	3,114	3,513	1,113	1,881	741	1,041	643	432	143	89	171	82	94
March	40,316	8,907	4,790	1,342	2,079	864	1,037	832	369	129	227	213	31	55
Apr.	33,416	8,275	4,834	1,781	1,624	1,868	865	402	431	71	93	204	27	23
May	28,705	6,773	2,937	1,848	1,239	1,010	705	200	386	186	241	110	24	47
June	23,795	5,894	2,327	1,655	1,188	1,465	1,070	983	546	269	214	178	20	34
July	34,266	6,768	2,603	2,202	1,552	1,447	800	132	586	295	480	195	34	27
Aug.	26,081	7,327	2,819	2,110	1,888	1,284	796	655	1,159	303	596	199	52	55
Sept.	35,675	8,843	2,900	2,029	1,355	1,922	819	472	1,125	283	430	159	43	27
Oct.	28,110	8,082	2,962	2,423	1,865	2,396		585	889	301	2	210	63	43
Nov.	37,673	9,247	3,194	3,007	1,548			568		194	-18	179		50
Dec.	35,850	4,749			1,846			725			157	184		
	395,667	84,865			20,253			6,529			2,665	2,125		

a—Including gutta percha. b—Including balata. c—Reexports not deducted. d—Believed to include scrap and reclaimed rubber. e—Russian statistics are exports from United Kingdom only to Russia. f—Australian annual statistics including 1924 are exports to Australia from Malaya, Ceylon, Dutch East Indies and United Kingdom; monthly figures and total for 1925 are exports from Malaya, Ceylon, and Java only. -Minus sign, reexports in excess of imports. *All statistics from original official trade returns.*

The Market Place

3.

LINERS — PROCESSED
For
Various Rubber Stocks
The Cleveland Liner & Mfg. Co.
5508 Maurice Ave., Cleveland, O.

MOLDS & CORES—Tire building machines; tire finishing stands; tubing machines; hydraulic presses.
The Akron Standard Mold Co.
Akron, Ohio

RECLAIMED RUBBER—
Uniformity, reliability, cleanliness.
Pequanoc Rubber Co.
Butler, N. J.

MACHINERY—
Heater Presses, Molds and Cores, Tubing Machines.
The Williams Foundry & Mach. Co.
"In Business Since 1888"
Akron, Ohio

MOLDS AND CORES —
Also Non-Skid Engraving Machines. Licensees for Watch-case Heaters and India Cores & Chucks.
The Franz Foundry & Machine Co.
Akron, Ohio

RECLAIMED RUBBER
of Standardized Quality.
NO. 188 FOR TUBES
Philadelphia Rubber Works Co.
New York Akron Philadelphia

MANDRELS--CIRCULAR
and Economy Calender Shells
Prompt Service—Let us quote you.
The Clyde E. Lowe Co.
2976 E. 81st St., Cleveland, Ohio

MOLDS & CORES—for automobile tires; general machine work.
Kuhlke Machine Co.
Akron, Ohio

RECLAIMED RUBBER—
for all purposes.
Rubber Regenerating Co.
Naugatuck, Conn.

MICA — Water Ground and Water Floated — 160 Mesh —Absolutely Free from Grit. Akron Stocks, also Factory Shipments.
The C. P. Hall Co.
116 Central Savings & Trust Bldg., Akron

"NU-GUM" RUBBER
Produced from No. 1 Floating Tubes. Absolutely pure — no oils —no compound added. *Specific Gravity*, .98.
E. L. Bullock & Sons, Inc.
99 John St. New York City

RECLAIMED RUBBER
Well Known Standards
Monatiquot Brands
Stedman Products Company
South Braintree, Mass.

MICA—160 mesh—water ground —water floated—free from foreign matter.
Stocks carried at Trenton, N. J.— Cleveland, O.—Chicago, Ill.
The Harshaw Fuller & Goodwin Company
Hanna Building, Cleveland, Ohio

PINE TAR — Retort "Sunny South", "Pentarco", "American". Brands for Tires, Tubes, Mechanicals,—Reclaim. *The Best Softener*
E. W. Colledge
P. O. Box 356 Jacksonville, Fla.
Agents in New York, Chicago, Cleveland.

RECLAIMED RUBBER
A standardized grade for every requirement.
U. S. Rubber Reclaiming Co., Inc.
100 E. 42nd St., New York, N. Y.
"44 Years Serving the Industry Solely as Reclaimers"

MOLDS
FOR TIRES, MECHANICAL GOODS & DRUGGIST SUNDRIES.
The Akron Rubber Mold & Machine Co.
AKRON, OHIO.

POWER EQUIPMENT
Boilers — Compressors — Pumps
Generators — Tanks — Heaters
Rubber Machinery
F. William Stocker
Hoboken, New Jersey.

RECLAIMED RUBBER
The Xylos Rubber Co.
Akron, Ohio
CAPACITY 250,000 POUNDS DAILY

MOLDS AND CORES—
Tire building equipment; general machine work.
The Akron Equipment Co.
Akron, Ohio

RECLAIMED RUBBER
We specialize in fine Grey, Black and Red Reclaimed Rubber.
Send us Your Inquiries
The Defiance Rubber Co.
Defiance, Ohio

RED OXIDE—A special grinding, guaranteed uniform in color and quality.
Joseph A. McNulty
114 Liberty St. New York City

THE MARKET PAGE Section Continued on Following Page

The Market Place

RUBBER— Crude and scrap, all grades.

H. Muehlstein & Co.

Liggett Bldg. New York

Akron, Chicago, Boston, Hoboken

SANITARY GOODS—

Dress Shields, Baby Pants, Aprons, Elastic Belts, Bloomers, Stepins, Bibs, Guimps and Brassieres.

SPECIAL GOODS CUT TO ORDER

Rand Rubber Co., Inc.

Sumner Ave. & Halsey St., Brooklyn, N. Y.

TIRES

"Goes a long way to make friends"

General Tire & Rubber Co.

Akron, Ohio

IF YOU need a light rubber for padding or shock absorbing, you should use RUBBER FOAM (in sheets).

Waterproof; will never rot; one-fourth the weight of cork. *Write for booklet.*

C/M Company of America

181 N. Dearborn St., Chicago, Ill.

EXCLUSIVE DISTRIBUTORS

STEARIC ACID

STEAREX, the product standardized for rubber compounding.

Binney & Smith Co.

41 East 42nd St., New York City

TUBING, INSULATING and Straining Machinery

"Perfected" equipment for inner tubes, treads, and tire beads. Circular hose looms.

John Royle & Sons

Paterson, New Jersey

RUBBER PRODUCTS

Sanitary Goods, Sheetings, Bathing Caps, Aprons, Rubber Specialties.

Sheet Gum Cut to Pattern

RANDPRINT RUBBER

Rand Rubber Co., Inc.

Sumner Ave. & Halsey St., Brooklyn, N. Y.

STRIP CUTTING MACHINES

For cutting all rubber, composition and plain or impregnated fabrics.

Cameron Machine Co.

61 Poplar St., Brooklyn, N. Y.

USED MACHINERY

Mills, Calenders, Grinders, Washers

New and Old Rubber Scrap

Rubber Cloth Remnants

M. Norton & Co.

Locust St. Medford, Mass.

RUBBER PRODUCTS

Manufacturers of all classes of Rubber Goods.

United States Rubber Co.

1790 Broadway, New York City

SULPHUR— *"Tire"* Brand Superfine; *"Tube"* Brand Velvet; quality Sulphur for the rubber trade.

Stauffer Chemical Co.,

of Texas.

Scanlon Bldg. Houston, Texas

San Francisco, Cal. Chauncey, N. Y.

WHITING—Domestic

RUBBER MAKERS STANDARD

Wm. S. Gray & Co.

342 Madison Ave., New York

RUBBER SCRAP

Always Buying and Selling

Rubber Waste, Cured and Uncured, Hard Rubber, Balata, Gutta Percha.

HERMAN WEBER

Newark & Jackson Sts., Hoboken, N. J.

TECHNOLOGIST — Testing, formulæ, costs, experimental work on all classes of rubber products. Litigation.

Fred'k. J. Maywald, F.C.S.

5 William St., Belleville, N. J.

WHITING & PARIS WHITE

manufactured from *Genuine English Chalk* and *Cliffstone*—no adulterations.

Southwark Mfg. Co.

Camden New Jersey

RUBBER SUBSTITUTES

White, brown and black.

Carter Bell Mfg. Co.

150 Nassau St. New York

TESTING MACHINES

U. S. ABRASION TESTER

RUBBER TENSILE TEST MACHINES

Write for Descriptive Literature

Henry L. Scott Co.

P. O. Box 963 Providence, R. I.

WOOD FLOUR (wood pulp)

FINELY POWDERED WHITE PINE WOOD Like Flour—Uniform in Quality

Send for Samples

Becker, Moore & Company, Inc.

MANUFACTURERS

North Tonawanda, New York

SANITARY GOODS — Dress Shields, Reducing Garments, Sheetings, Aprons, Bathing Caps, etc.

I. B. Kleinert Rubber Co.

485 Fifth Ave., N. Y. City

TIRES—For Every Transportation need from the Ford Runabout to the heaviest truck and Multiple passenger coach.

Fisk Rubber Co.

250 West 57th St., N. Y. City

ZINC OXIDES — Including KADOX and "Albalith."

The New Jersey Zinc Sales Company

New York Pittsburgh Chicago

Cleveland San Francisco

REVIEW DESK

PHYSICS IN INDUSTRY. By Walter Makower, M.A., D.Sc., F. Inst. P., and Bernard A. Keen, D.Sc., F. Inst. P. With introductions by Sir Charles Parsons, K.C.B., LL. D., D. Sc., F.R.S. and Sir Daniel Hall, K.C.B., LL. D., F.R.S. Vol. IV. 63 pp. Oxford University Press, American Branch, New York. Cloth. $1.00.

Of the two lectures delivered before the Institute of Physics, which make up this book, one is devoted to "Physics in the Rubber Industry," which was delivered on April 29, 1925, and lays special emphasis on tire manufacture. The lecture is largely concerned with the application to the rubber industry of physical methods and apparatus evolved during many years.

The use of thermocouples in masticating machinery to indicate and control the temperature and in the substance of a tire being tested to indicate the temperature rise of any part is detailed. Such a hot spot could be caused by excessive hysteresis of the rubber or of the rubber-impregnated cotton, or by frictional contract. The thermocouple also gives an indication of the power absorbed by hysteresis, and thermocouples are extensively used during the vulcanization of heavy pneumatics and solid tires to denote the distribution of temperature at different depths so as to attain equal vulcanization of the various layers by the provision and distribution of suitable materials with varying rates of vulcanization.

• • • •

THINKING THRU. A series of booklets written for the jobber. By C. D. Garretson, president. Electric Hose & Rubber Co., Wilmington, Del.

Each booklet in this series—and three have already been issued—is the kind a busy man does not throw into the basket, but places carefully away in his desk until he can find ample leisure to read it carefully, for the typography first attracts attention, and then the first page holds it. The author's sole aim is to help the jobber with the numerous problems that come up in the conduct of his daily affairs, and if in thus aiding him he also impresses on his memory the name of the Electric Hose & Rubber Co., Mr. Garretson will be readily forgiven. But nowhere in the booklets is the name of the company mentioned, except, perhaps in the first of the series where a section is devoted to the policy of the company.

The booklets give the views of one who, although not in the jobbing business, is able to see jobbers' problems in a different light for that very reason. The Electric Hose & Rubber Co. sells all its products through jobbers, because Mr. Garretson believes that the jobber renders a service that is valuable to both manufacturers and retailers. As some retailers, the author believes, are working against their own best interests in trying to eliminate the jobber, Mr. Garretson sets forth his contention that this agitation has grown because so few have thought the matter out. In presenting his arguments, the author has faced the question of the functions of the jobber from all angles and has brought to bear on them a keen mind and a facile pen.

• • • •

THE STORY OF RUBBER. By Donald Wilhelm. 24 pp. 6½" x 9½". Reprinted from an advertising insert in the January issue of *World's Work*.

Disguising advertising in such a way that it will impress the reader of a newspaper or periodical as editorial matter is an old stunt. It still constitutes a large part of the publicity in certain lines, but little of it has been done in the rubber industry.

In this pretentious advertisement the author retraces the history of rubber products from 1736 to the present day. His style is designed to appeal to the average reader who gleans all his knowledge of rubber from the daily press. The writer has told the old story in a new way that is sure to be very interesting to such a reader. Tied up in the story are the achievements of the United States Rubber Company in the field of sprayed rubber, accelerators, tires and footwear.

"The Story of Rubber" is a very clever piece of advertising.

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TRADE

MARK

United States Rubber Company

MAIN OFFICE:

1790 Broadway, New York

Fifty-Three Factories
Branches in all Principal Cities

Manufacturers of All Classes of Rubber Goods, including—

"U. S." ROYAL CORD AND USCO BALLOON TIRES
"U. S." ROYAL CORD AND USCO CORD TIRES
"U. S." ROYAL CORD MOTORCYCLE BALLOON TIRES
"U. S." ROYAL CORD MOTORCOACH TIRES
"U. S." ROYAL CORD HEAVY SERVICE TIRES
"U. S." TWIN CUSHION, CUSHION, HIGH SIZE CUSHION and DEMOUNTABLE CUSHION TRUCK TIRES
"U. S." ROYAL, GREY, AND USCO TUBES
"U. S." BICYCLE TIRES, REPAIR MATERIALS and ACCESSORIES
"U.S." AUTO TOP MATERIALS "U. S." SPRING-STEP RUBBER HEELS USKIDE SOLES
"U. S. RUBBER FOOTWEAR KEDS SNUG-LER FELT FOOTWEAR
"U. S." RAYNSTER RAINCOATS BELTING—PACKING—HOSE HARD RUBBER PRODUCTS
"U. S." TILE FLOORING USCO SHEET FLOORING NAUGAHYDE LUGGAGE
"U. S." ROYAL GOLF BALLS "U. S." DRUGGIST SUNDRIES
"U. S." PARACORE INSULATED WIRE AND CABLE
"U. S." BATHING APPAREL

United States Rubber Export Co., Ltd.

Exporters of the Products of

United States Rubber Company

AND

Dominion Rubber Company, Limited

MAIN OFFICE:

1790 Broadway, New York, U. S. A.

Branches and Distributing Agencies in all leading cities of the World

BLUE PROCESSED LINERS

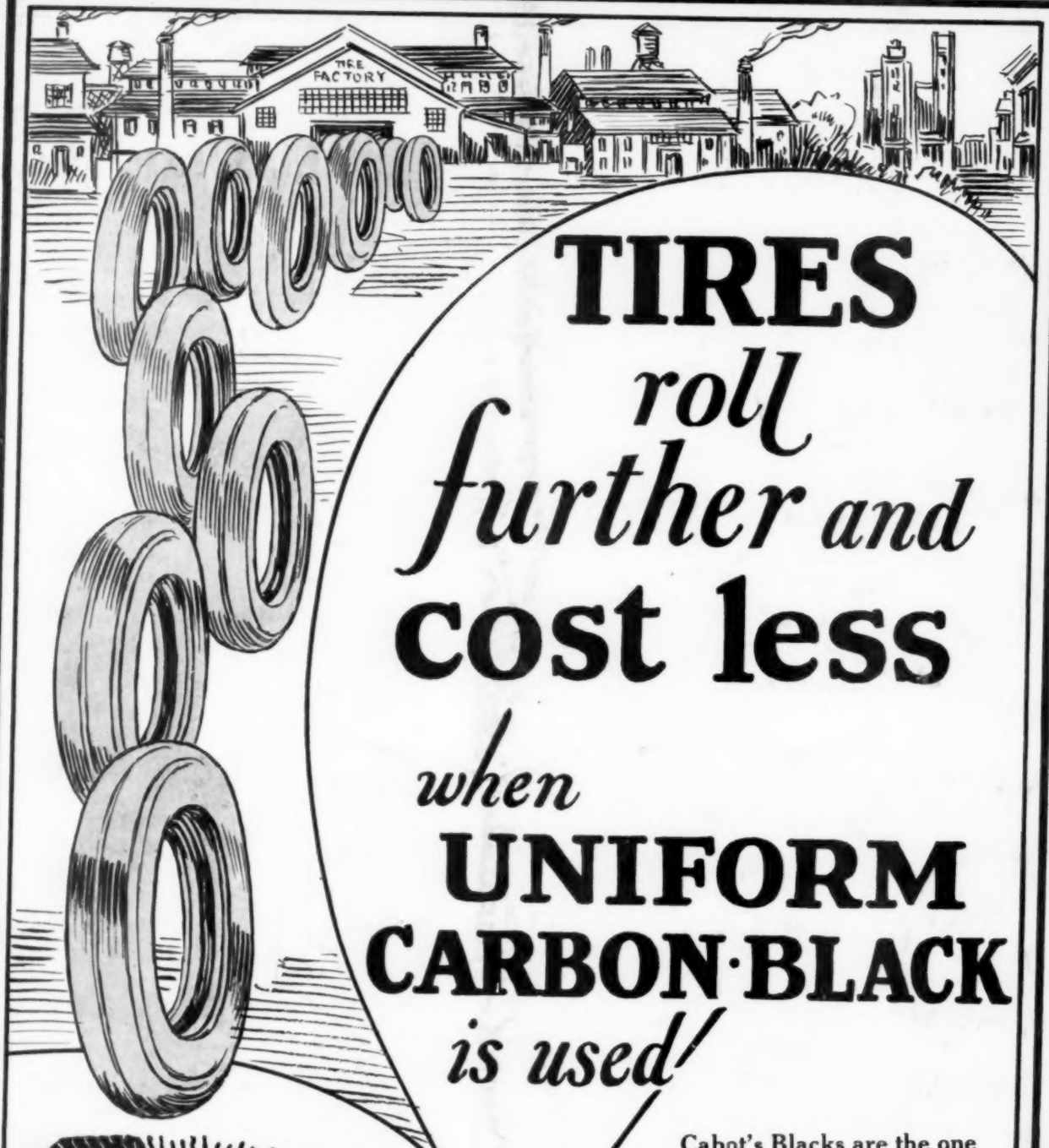
HAVE PROVED TO BE

WORTHY

THE CLEVELAND LINER & MFG. CO.

5508 MAURICE AVE.

CLEVELAND, OHIO



TIRES *roll further and* cost less

when UNIFORM CARBON-BLACK *is used*

Cabot's Blacks are the one best bet in the present day competitive market.
Let us show you why.

CARBON BLACK

GODFREY L. CABOT, INC.
940 OLD SOUTH BUILDING, BOSTON.